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# **A Corpus Based Study of the Diachronic Development of [V ge X] in Chinese: A Construction Grammar Account**

**Ziming Lu**



THE UNIVERSITY  
*of* EDINBURGH

A thesis presented in partial fulfilment of  
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Doctor of Philosophy

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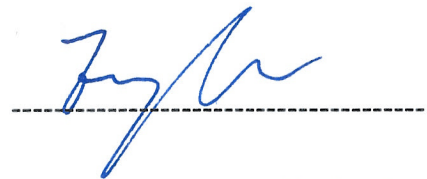
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## Declaration

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or professional qualification except as specified.

Date: 07 April 2017

Signature of the candidate:



Ziming Lu.

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# Abbreviations

## ABBREVIATION

## TERMS

ASSOC

Associative (的 *-de*)

ASP

Aspect Marker (了 *-le*, 过 *-guo*)

BA

*Ba* (把)

BEI

*Bei* (被)

CL

Classifier

CL<sub>v</sub>

Verbal classifier

COP

Copula

CRS

Currently Relevant State

(sentence final 了 *-le*)

GE

Non-classifier *ge* 个

GE<sub>cl</sub>

Classifier *ge* 个

PL

Plural (们 *-men*)

PROG

Progressive Marker (着 *-zhe*)

Q

Question Marker

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## Abstract

This thesis applies the construction grammar framework to a corpus-based study of the development of post-verbal *ge* in Chinese. *Ge* in Mandarin Chinese is widely considered as a general classifier (Li and Thompson 1981, Zhu 1982, Lü 1984). As a classifier, the main function of *ge* is to categorize the entity denoted by the following noun and enable numeral attachment. Thus, *ge* is typically preceded by numerals and followed by referential nouns. In a post-verbal position, when the numeral before *ge* is *yī* ‘one’, the numeral tends to be omitted. The ‘bare *ge*’ in post-verbal position is found co-occurring with non-referential nouns and non-nominal elements, such as predicative adjectives and verb phrases. The function of the post-verbal *ge* with these atypical collocations has attracted much attention in Chinese linguistic research (Zhang, 2003; Lü, 1984; Biq, 2004). One of the features of the previous research is that the researchers focus on a sub-set of post-verbal *ge* variations and try to provide a generalized claim about all instances of post-verbal *ge* used in Mandarin. Another feature is that the research focus is on *ge* alone and little attention has been paid to its co-texts and contexts of use. In addition, very little work has been done on the emergence of the mysterious function of post-verbal *ge* or the internal links between *ge* as a classifier and this new function.

The main task of this thesis is to identify the semantic and syntactic properties of the post-verbal *ge* with atypical collocations and to explore how *ge* developed these properties in the post-verbal position. Within a construction grammar framework, the post-verbal *ge* with this special function and its co-texts are identified as a construction with a telic and bounded aspectual meaning. This [V *ge* X] construction of telic and bounded aspectual meaning is different from the classifier construction in terms of morpho-syntactic features as well as semantic and pragmatic properties. With the constructional approach, this research shows that the unit to which changes apply is not *ge* alone but the [V *ge* X] construction and the morpho-syntactic and semantic relations between these three elements have changed over time. Furthermore, the investigation into the mechanism of these changes also reveals that the development of micro-constructions of the [V *ge* X] construction of telic and bounded aspectual meaning occurred in a constructional network, which links different constructions with the [V *ge* X] schema.

## Lay Summary

Chinese classifiers are typically used between numerals and nouns, such as 三个人 *san ge ren* ‘three people’, in which *san* ‘three’ is the numeral, *ge* is a mostly used classifier and *ren* ‘people’ is a noun to be quantified. The main function of a classifier in Chinese is to enable a noun to be countable. Therefore, classifiers in Chinese are commonly used together with nouns. There are many instances found in Chinese corpora in which the classifier 个 *ge* in the post-verbal position is used together with verbs, adjectives and even clauses. *Ge* in this [V *ge* X] pattern does not behave as a typical classifier and the main aim of the thesis is to investigate the relation between *ge* in [V *ge* X] and *ge* as a classifier in a noun phrase.

The thesis adopts construction grammar framework which studies language structures as form-meaning pairs, and first examines attested examples involving [V *ge* X] pattern in both the contemporary Chinese language and the archaic Chinese language from the 4<sup>th</sup> Century B.C. to the 16<sup>th</sup> Century A.D.. Based on these data, the form and meaning features of [V *ge* X] construction are described and it is concluded that *ge* in [V *ge* X] is no longer a classifier but a marker of a separate construction that designates a event with an endpoint. In addition, the archaic Chinese language data also reveals the link between *ge* in [V *ge* X] construction and *ge* as a classifier.

This thesis addresses the importance of historical language data in explaining contemporary linguistic problems and demonstrates how the construction grammar works in the Chinese language studies.



# Chapter 1 Introduction

## 1.1 Introduction

This thesis is a corpus-based study aiming to explain the synchronic variations in the use of post-verbal *ge* in Mandarin Chinese from a diachronic perspective. *Ge* in Mandarin Chinese is widely considered as a general classifier (Li and Thompson 1981, Zhu 1982, Lü 1984). As a classifier, the main function of *ge* is to categorize the entity denoted by the following noun and enable numeral attachment. Thus, *ge* is typically preceded by numerals and followed by referential nouns. In the post-verbal position, when the numeral before *ge* is *yi* ‘one’, the numeral tends to be omitted. The ‘bare *ge*’ in post-verbal position has shown various functions, three of which are illustrated in (1.1) - (1.3).

- (1.1) 他 吃 了 个 苹果。  
*ta chi le ge pingguo*  
he eat ASP GE apple.  
He ate an apple.

- (1.2) 我们 去 散 个 步。  
*women qu san ge bu*  
we go scatter GE step  
Let’s have a walk.

- (1.3) 我 请 你 去 那里 吃 个 饱。  
*wo qing ni qu nali chi ge bao*  
I invite you go there eat GE full  
I’ll treat you a meal there and you can eat as much as you can.

In (1.1), the bare *ge* in the post-verbal position is followed by a referential and countable noun referring to an indefinite entity. In (1.2), *ge* is used in a *lihe ci* ‘splittable Verb-Object (V-O) compound’<sup>1</sup> in which the second morpheme is considered as nominal but does not have a

---

<sup>1</sup> A splittable V-O compound (*lihe ci*) refers to the compounds that are generally composed of two monosyllabic constituents. These two constituents are considered to have a syntactic relation of the verb and its direct object. At least one of the two constituents in the compounds is a bound morpheme in Mandarin but the compounds show ‘limited separability’(Li & Thompson 1981:73). The main feature of a splittable V-O compound is that its

referential reading. In (1.3), the element following *ge* is an adjective and encodes additional information to the action designated by the preceding verb.

*Ge* in (1.1) is recognized as a classifier in Chinese but the debate about the functions of *ge* in (1.2) and (1.3) is still ongoing. There are three mainstream arguments about the functions of *ge* in instances like (1.2) and (1.3), listed as following:

- 1) *Ge* is still a classifier (Zhu 1982, Zhu 2000, Zhou 2011).
- 2) *Ge* is an object marker (Wu 1982, You 1983, Song 1993, Shi and Lei 2004).
- 3) *Ge* is a verbal classifier (Zhou 2011, Zhang 2003).
- 4) *Ge* is a *buyu* ‘non-object complement’<sup>22</sup> (secondary predicate) marker (Wu 1982, You 1983, Song 1993, Zhang 2003).

This study will deal with the puzzling function of post-verbal *ge* in instances like (1.2) and (1.3) with a focus on the synchronic-diachronic relationship. The following subsections introduce some background information and clarify some terminologies used in this study. In order to highlight the special uses of *ge* in the post-verbal position, Section 1.2 first provides an overview of Chinese classifiers and Section 1.3 describes the unique features of *ge* as a classifier. By contrast, the atypical features of *ge* used in the post-verbal position are introduced in section 1.4. Based on these typical and atypical features of *ge*, Section 1.5 lists the research questions addressed in this thesis and the organization of the remaining chapters.

## 1.2 Chinese Classifiers

### 1.2.1 An Overview of Chinese Classifiers

Cheng and Sybesma (1999:514) propose that nouns in Chinese can be divided into two groups: one group involves nouns referring to entities existing naturally as individual units, like *ren* ‘people’, *yizi* ‘chair’, *dayi* ‘coat’; and the other group consists of nouns denoting entities do not naturally exist as discrete units, like *shui* ‘water’, *feng* ‘wind’. They argue that all these nouns of both groups are mass nouns, which can appear in argument positions in a bare form as illustrated in (1.4).

---

two constituents can be separated by limited sets of words, such as aspectual markers (*guo*, *le*, *zhe*) and pronouns. This term is further analyzed in Chapter 4.

<sup>22</sup> The term *buyu* ‘complement’ used in Chinese linguistics literature is different from that in European language studies. It is broadly used to refer to elements that provide additional predicate information about the event

(1.4) a. 墙上 都 是 狗。  
*qiangshang dou shi gou*  
 wall.top all COP dog  
 There are dogs all over the wall.

b. 地上 都 是 水。  
*dishang dou shi shui*  
 floor.top all COP water  
 There is water all over the floor.

(Examples from Cheng (2012:200) example 2 (a) and 2(c))

In (1.4), the nouns *gou* ‘dog’ and *shui* ‘water’ are both used as mass nouns without any dependency elements such as classifiers and Chinese plural marker, 们 *men*. (1.4b) denotes a scene in which water is covering the floor while the most natural interpretation of (1.4a) is that there is the wallpaper on the wall with a pattern of dogs rather than a brutal and disgusting scene. In other words, unlike the noun *shui* ‘water’, the noun *gou* ‘dog’ in (1.4a) denotes individual entities, which are atomic in the sense that they cannot be further ‘divided into smaller parts of the same kind as a whole’ (Huddleston and Pullum 2002: 335). Thus, *gou* ‘dog’ in Chinese is conceptualized as a class of individuated entities but lexicalized as a mass noun. Cheng (2012) argue that the natural atomicity of entities is not mapped directly to semantic atomicity of nouns in the Chinese language. As a result, additional mechanisms are required in order to mark the count and mass distinction in the Chinese language. Chinese classifiers are applied to identify count nouns and measure words<sup>3</sup> to mark mass/non-count nouns.

Based on the above-mentioned requirement, classifiers and measure words are typically located between numerals and nouns in NPs as illustrated in (1.5a) and (1.5b), respectively.

(1.5) a. 三 粒 米  
*San Li mi*  
 three CL rice.grain  
 three grains of rice

---

<sup>3</sup> Term used in line with Tai (1994), equal to ‘massifiers’ in Cheng and Sybesma (1998) and Cheng (2012).

- b.     三   碗   饭  
           *San   wan   fan*  
           three bowl rice  
           three bowls of rice

In (1.5a), *li* as a classifier marks the countability of grains and in (1.5b) the measure word *wan* creates a countable unit for the mass interpretation of *mi* ‘rice’.

As analyzed above, all Chinese nouns are mass by default, so markers of mass nouns are not obligatory in the Chinese language but classifiers are indispensable when countability of nouns needs to be marked. In addition, classifiers and measure words are often found collocating with the same nouns as in (1.5). Thus, classifiers and measure words do not differ only in their distributions. Since the thesis is related to classifiers, it is necessary to distinguish them from measure words to avoid ambiguity.

### 1.2.2 Classifiers and Measure Words

From a cognitive perspective, classifiers denote ‘salient perceptual properties’ which are ‘permanently associated with entities named by the class of nouns’ while measure words only denote ‘the quantity of the entity’ (Tai 1994: 3). For example, the classifier *li* in (1.5a) is used with *mi* ‘rice (grain)’ and other nouns such as *shazi* ‘sand’, and *yaowan* ‘pill’, which denote small size entities. On the other hand, the measure word *wan* in (1.5b) can also be used with nouns such as *mi* ‘rice’, and *shui* ‘water’ as well as with nouns like *dingzi* ‘nail’, which denote atomic entities. Substances such as water, rice and entities such as nails have little in common in terms of their ‘salient perceptual properties’, and the measure word simply creates a unit indicating their quantity. Thus semantically, according to Tai (1994: 3), classifiers denote “relatively ‘inherent’ or ‘permanent’ properties of entities” while measure words denote ‘contingent’ or ‘temporary’ properties.

Classifiers and measure words do not behave the same morphosyntactically. They can be distinguished by three syntactic tests:

- (a) Their co-occurrence with 的 *de*, the modifier marker
- (b) Their co-occurrence with adjectives.
- (c) Their substitution with *ge*, the general classifier.



The following part presents the differences between classifiers and measure words with these three tests.

#### a. Co-occurrence with 的 *de*

The first syntactic method to distinguish measure words and classifiers is their compatibility with the modifier marker 的 *de* (Tai 1994, Cheng and Sybesma 1998, Cheng 2012). 的 *de* can be inserted between a measure word and its following noun as in (1.6) forming an associative phrase (Li and Thompson 1981: 113).

- (1.6) 三      碗      的      饭  
      *san    wan    de       fan*  
      three bowl ASSOC rice  
      Three bowls of rice

In (1.6), the presence of 的 *de* does not affect the grammaticality of the expression but it may be ambiguous. (1.5b) depicts a picture of rice in three bowls while the focus of (1.6) is on the quantity of rice and the image of bowls are backgrounded or even not necessary to be presented in the picture.

However, classifiers do not co-occur with modifier marker 的 *de* as in (1.7).

- (1.7) \*三    粒    的      米  
      *san    li    de       mi*  
      three CL ASSOC rice.grain

This also suggests that measure words and classifiers are combined with their following NPs differently.

#### b. Co-occurrence with adjectives

Furthermore, measure words can be modified by adjectives, such as *da* ‘big’, *xiao* ‘small’ but classifiers normally cannot.

- (1.8) a. 两      大    箱      书  
      *liang da    xiang shu*  
      Two big box book  
      two big boxes of book

- b. \*三 大 粒 米  
*San da li mi*  
 three big CL rice.grain

But there are some instances in which some adjectives are used between numerals and classifiers as in (1.9).

- (1.9) a. 一 小 张 纸  
*Yi xiao zhang zhi*  
 One small CL paper  
 A small piece of paper
- b. ??? 两 大 只 鸡  
*liang da zhi ji*  
 two big CL chicken  
 two big chickens

In (1.8a), the adjective *da* ‘big’ modifies the measure word *xiang* and it does not have any modifying function on the following noun *shu* ‘book’. In (1.9), the adjectives describe the size of the following nouns, i.e. the size of paper and the size of chickens instead of the classifiers. Furthermore, Zhu (1982:52) noticed that in (1.9a), *zhi* ‘paper’ itself is controversial in terms of its referent. The referent of the noun *zhi* ‘paper’ can be construed as a type of mass substance as well as discrete entities. (1.9b) is controversial because it is a rare instance found on the internet and it is not acceptable for all native speakers. So instances in (1.9) are not convincing counterexamples.

### c. Substitution with *ge*

*Ge* as a general classifier can replace almost all classifiers without changing the expressions’ propositional meaning as in (1.10) (Zhu 1982, Tai 1994).

- (1.10) a. 两 张 桌子  
*liang zhang zhuozi*  
 two CL table  
 two tables

- b. 两      个      桌子  
*liang ge zhuozi*  
 two GE<sub>cl</sub> table  
 two tables

As mentioned at the beginning of 1.2.2, classifiers denote salient perceptual properties of the entities referred by the associated nouns. In (1.10a), *zhang* as a classifier is associated with nouns denoting entities with flat surfaces, such as *zhuozi* ‘table’; in (1.10b), when *zhang* is replaced by *ge*, *ge* still denotes the concept that the table is a discrete entity, although *ge* does not highlight the flat-surface property of a table. Moreover, the noun *zhuozi* ‘table’ has the semantic component of involving a flat surface, so the replacement of classifiers does not make much difference between the meanings of the two expressions.

However, measure words cannot be replaced by the general classifier *ge* without changing the meaning of the expression (Tai, 1994).

- (1.11) a. 一      箱      苹果  
*Yi xiang pingguo*  
 one box apple  
 one box of apples
- b. 一      个      苹果  
*Yi ge pingguo*  
 one GE<sub>cl</sub> apple  
 one apple

In (1.11), *xiang* ‘box’ is a measure word and it treats *pingguo* ‘apple’ as a mass noun since the number of apples in this collection is not specified; in (1.11b), *xiang* ‘box’ is replaced by a general classifier *ge* and the meaning of the expression changes. *Pingguo* ‘apple’ is marked by *ge* as a count noun referring to an individuated entity. Thus, by replacing the measure word with *ge*, the collection reading of entities is replaced by an individuated reading.

To sum up, classifiers emphasize the discrete existence of entities denoted by nouns while measure words indicate the total quantity of substances/ entities denoted by nouns. Thus, they are different in semantic bases as well as syntactic behaviours. These differences are summarized in the table below:

Table 1. Dissimilarities between classifiers and measure words

	Semantic Base	Co-occurrence with <i>de</i>	Co-occurrence with adjectives	Replacement with <i>ge</i>
Classifiers	a. Marking individuated entities. b. Denoting permanent salient perceptual properties of entities	No	Rare	Yes, without significant semantic change
Measure words	a. Creating measure units b. Denoting quantity of entities	Yes	Yes	Possible but with great semantic change

After distinguishing classifiers and measure words, the following sections focus on the properties of classifiers and especially the general classifier *ge* with details.

### 1.2.3 Function of Classifiers

The discussion in 1.2 so far has implied three main functions of Chinese classifiers: 1) marking discrete entities or individuating entities referred by the following nouns associated with; 2) enabling numerals to attach to nouns in the Chinese language; 3) categorizing entities referred by the following nouns based on their salient perceptual properties. In this subsection, these three functions of classifiers are further addressed one by one.

#### a. Individualizing

As introduced in 1.2.1, unlike measure words, classifiers do not create units for entities denoted by nouns; instead, they identify discrete entities. Paris (1981: 69) also refers to classifiers as ‘a mark of individuation, of singularization’. In addition, classifiers can also individualize mass substance and abstract concepts based on speakers’ perception of the entities as illustrated in (1.12) below.

(1.12) a. 三 滴 水  
*san di shui*  
 three CL water  
 Three drops of water

b. 两 个 理想  
*liang ge lixiang*  
 two GE<sub>cl</sub> dream  
 Two dreams

*Shui* ‘water’ denotes a kind of substance that does not exist as atomic entities, but in (1.12a), this substance is perceived in its discrete form, i.e. drops by associating with the classifier *di*. As Croft (1994: 162) suggests that the individualizing function of Chinese classifiers helps to ‘extract ... distinguished, that is, discrete occurrences’ of entities denoted by nouns. In (1.12b), *lixiang* ‘dream’ denotes an abstract concept but it can be perceived as discrete when the noun is used with classifiers.

Therefore, no matter whether entities denoted by nouns exist in discrete or mass form, classifiers are able to pick out their individualized instances. Thus, the essential function of classifiers is to individualize entities denoted by nouns.

### **b. Enabling Numeral Attachment**

Based on the hypothesis by Cheng and Sybesma (1998) that nouns in Chinese are all used as mass nouns, classifiers are required to mark or individualize discrete instances. Since discrete entities can be numbered, a noun collocating with a classifier is able to co-occur with numerals. In other words, classifiers enable numeral attachment to nouns in Mandarin Chinese. This also indicates that classifiers, unlike measure words, do not have a quantification function, and it is the preceding numerals that express number.

From another perspective, since nouns in Chinese are all mass by default, there would be no need to make a count/mass distinction if numbers did not need to be expressed. In other words, without numerals, classifiers are not needed. As a result, classifiers, in general, have to co-occur with numerals or quantifiers such as *ji* ‘several’, *xie* ‘some’, as demonstrated in (1.5)-(1.12).

However, there is an exception. Paris (1981) comments that classifiers are markers of singularity. That is to say, classifiers imply singular number, i.e. one. Because of this semantic component, numeral *yi* ‘one’ before classifiers is found absent in some instances as in (1.13).

- (1.13) a. 那            本    书  
               *na*            *ben*   *shu*  
               that           CL   book  
               that book
- b. 吃            个    苹果  
               *chi*            *ge*   *pingguo*  
               eat            GE<sub>cl</sub>   apple  
               eat an apple

These instances do not violate the general requirements for the presence of numerals preceding classifiers because the drop of numerals is restricted and conditional. The NPs in (1.13) cannot have a plural reading as in ‘those books’ or ‘eating apples’. If numeral *yi* ‘one’ is added back in (1.13), the propositional meaning of the expressions are not affected. (Tang, 1990: 404). That is to say, when the numeral before a classifier is *yi* ‘one’, it can drop (Lü, 1984) and only numeral *yi* ‘one’ can drop in front of classifiers because other numeral meanings cannot be recovered in the context. Furthermore, numeral *yi* ‘one’ can be omitted when preceded by demonstratives as in (1.13a) or verbs as in (1.13b). According to Lü (1984), when the singular basic NP<sup>4</sup> function as the object of a verb, i.e. in a post-verbal position, the numeral *yi* ‘one’ is usually omitted, unless the number information is emphasized or the word *yi* does not only carry numeral meaning<sup>5</sup>. But if the NP appears in the subject position, the numeral *yi* ‘one’ cannot be omitted.

Another fact to illustrate the relation between classifiers and numerals is that the combination of numeral and classifier is not easily to be interrupted. Except for very rare cases as (1.9) in which limited types of adjectives appear between numerals and classifiers, nothing can intervene this combination. Moreover, this numeral + classifier combination cannot iterate and (1.14) is not grammatical (Ng 1997: 4).

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<sup>4</sup> The basic NPs in Chinese in this thesis refer to NPs in the form of Numeral + Classifier + Noun.

<sup>5</sup> *Yi* in Chinese may also mean ‘alone, the same, the whole’ in accordance to the context.

- (1.14) \*三 条 三 只 蛇  
*san tiao san zhi she*  
 three CL three CL snake

In (1.14), although both the classifier *tiao* and classifier *zhi* can be used with the noun *she* ‘snake’, they are iterative, which is not allowed. Furthermore, the word order of this numeral+ classifier combination is fixed and they can be relocated to a post-noun position as a whole constituent as in (1.15).

- (1.15) 医院 有 医生 三 位。  
*yi yuan you yi sheng san wei*  
 hospital have doctor three CL

There are three doctors in this hospital.

These facts all suggest that numerals and classifiers are closely connected. They form a constituent and this constituent combines with nouns to form NPs with number meaning.

Based on these facts, researchers proposed a structure of NP in Chinese (Xue & McFetridge, 1995; Ng, 1997; Wang & Liu 2007). Since Num+CL behaves as one syntactic unit, it functions as a specifier of the following noun, and they all together form a Specifier+ Head structure. ‘Specifier’ here is understood as ‘sister to a non-minimal head and daughter of a maximal projection’ as defined in Ng (1997:22). There are several reasons for determining this structure. First of all, a numeral and a classifier form a constituent first as illustrated in (1.15) and then join with a noun. Second, it is the noun, instead of the classifiers, which bears the semantics of number. Third, the numeral+ classifier constituent can either specify the indefinite reading of an NP or combine with demonstratives as in (1.13a) to denote the definite state of the NP.

To sum up, classifiers and numerals are closely related and neither of them can be (semantically) present alone. In other words, classifiers enable numerals to attach to nouns and the demand on number expressing makes the existence of classifiers. Numerals and classifiers are combined as a Specifier and a structure of basic Chinese NP can be briefly represented with brackets as [[Num CL] N].

### c. Categorizing

Although classifiers enable numerals' attachment to nouns and individualize entities denoted by nouns, the assignment of classifiers with nouns is not completely arbitrary. Allan (1977: 285) defines a classifier as a morpheme, which "denotes some salient perceived or imputed characteristic of the entity to which the associated nouns refer". So classifiers and the nouns they co-occur with demonstrate a semantic matching relationship based on the feature of the entity that nouns refer to.

- (1.16) a. 一 条 路  
           *yi tiao lu*  
           one CL road  
           a road
- b. \*一 条 太阳  
       *yi tiao taiyang*  
       one CL sun  
       (the sun)

The classifier *tiao* in (1.16) denotes the shape property of an entity denoted by nouns, i.e. a long and stripe-like shape. Thus, it tends to associate with nouns that refer to entities of this shape. *Lu* 'road' in (1.16a) satisfies this criterion but *taiyang* 'sun', which denotes a round object does not. Thus, (1.16b) is not grammatical. All the instances of classifiers above demonstrate this semantic component matching relation between classifiers and nouns. For instance, the classifier *li* (in (1.5)) co-occurs with nouns referring to small size entities; *zhang* (in (1.9), (1.10)) associates with nouns denoting entities with flat surfaces.

Since classifiers denote this additional semantic property (to individualizing), the choice of classifiers can influence the meaning of the expression (as instantiated in (1.17)) and highlight some properties of the entities referred by nouns (as in (1.18)).

- (1.17) a. 我 上 了 一 堂 课  
           *wo shang le yi tang ke*  
           I go ASP one CL class  
           I went to a class



- b. 我 上 了 一 门 课  
 wo shang le yi men ke  
 I go ASP one CL course  
 I joined a course

*Ke* in Chinese can mean ‘class’ as an instance of an event and also can mean ‘course’ as a prescribed number of instruction classes. So the classifiers *tang* and *men* clarify the meaning of the noun and help to avoid ambiguity.

- (1.18) a. 两 头 老虎  
 liang tou laohu  
 two CL tiger  
 Two tigers

- b. 两 只 老虎  
 liang zhi laohu  
 two CL tiger  
 Two tigers

The classifier *tou* in (1.18a) is normally used with nouns of large size animals and the classifier *zhi* in (1.18b) is typically used for nouns denoting animals. When the classifier *tou* is used, the size property of a tiger is highlighted but (1.18b) does not emphasize any special property of the tiger other than being animate.

Since classifiers have the semantic function of denoting salient and permanent characteristics of entities denoted by the nouns they are associated with, each classifier collocates with nouns referring to entities with common characteristics. Therefore, classifiers have a function of categorizing.

## 1.2.4 Summary

In 1.2.1, some background information about Chinese classifiers has been introduced. Since all nouns in the Chinese language are mass nouns, in order to make count/mass distinction, classifiers and measure words are applied. Classifiers are used to identify countable entities while measure words are used to provide quantity information regarding mass nouns. They are different in semantic bases as well as syntactic behaviour as illustrated in Table 1. The

function of classifiers includes individualizing entities denoted by nouns they co-occur with, enabling numeral attachment to nouns and categorizing entities based on their salient and permanent characteristics.

Because of the categorizing function, the use of classifiers is complex and the complexity in a way increases the use of a special classifier *ge* which is a default classifier lacking complexity. Among all the classifiers in Chinese, *ge* is widely accepted to be the most frequently used one (Li and Thomson 1981, Lü 1984, Guo and Zhong 2005; Zhang 2007 et al.). The quantitative research of Guo & Zhong (2005: 27) using the corpus ‘Penn Chinese Treebank’ suggested there are in total 3940 [Num Cl N] co-occurrences among which 497 instances are using classifier *ge* occurring with different noun types. The main feature of *ge* is that unlike the other classifiers, *ge* does not denote additional semantic meaning, i.e. characteristics of entities referred to by nouns. Thus, *ge* as a classifier does not have categorizing function and it potentially can co-occur with all nouns denoting discrete entities. In order to distinguish classifier *ge* and the other classifiers, *ge* is referred to as a general classifier and the other classifiers as specialized classifiers following Myers (2000)’s terminology. Section 1.3 focuses on the features of *ge* as a classifier in contrast with specialized classifiers.

### 1.3 Ge as a Classifier

*Ge* as a general classifier has several unique features in contrast with specialized classifiers in terms of its collocational range, semantic features and syntactic behaviours.

First of all, *ge* as a general classifier can co-occur with a wide range of nouns that refer to entities of various categories. By contrast, specialized classifiers are limited to collocating with nouns denoting entities of specific categories. Based on a brief search in the Contemporary Chinese corpus of Institute of Applied Linguistics Ministry of Education, the total token frequency of classifier *ge* is 0.3291% against 20 million Chinese characters in contrast to the most used specialized classifier 只 *zhi*, whose token frequency is only 0.0351%. The significant difference between token frequencies of general classifier *ge* and the most used specialized classifier *zhi* indirectly implies that *ge* has a much wider collocational range with nouns than any specialized classifiers. As introduced in 1.2.1, classifiers denote ‘relatively ‘inherent’ or ‘permanent’ properties of entities’ (Tai, 1994) and

therefore classifiers and nouns are not matched arbitrarily. They have the semantic matching relationship based on the properties of entities referred by nouns. *Ge*, however, when used as a classifier, does not show such a restriction. As indicated in the syntactic test in 1.2.2, *ge*, hypothetically, can substitute most classifiers (if not all) without changing the grammaticality of the expressions. *Zhuozi* ‘table’ in (1.10) typically is associated with its specialized classifier *zhang*, which captures the property of having flat surfaces. *Ge* can collocate with *zhuozi* ‘table’ as well. Myers (2000) assumes that *ge* is a default classifier, unlike specialized classifiers that need to match with specific nouns.

Second, based on the definition of classifiers by Allan (1977: 285), a classifier ‘denotes some salient perceived or imputed characteristic of the entity to which the associated nouns refer’. Since *ge* associates with nouns which refer to various types of entities, the common characteristic denoted by *ge* as a classifier must be highly general. Therefore, Myers (2000) argues that *ge* is semantically vacuous. However, this is not completely accurate. Since all classifiers have the function of individualizing or singularizing, *ge* as a classifier also has this function. From another perspective, the most general characteristic of entities referred by nouns is their discrete existence and *ge* as a general classifier highlights this property. Because *ge* does not denote any specific characteristic of entities referred by nouns, *ge* is able to collocate with abstract nouns, such as *lixiang* ‘dream’ in (1.12b), which does not have concrete shape.

Another feature of *ge* as a general classifier is that it does not tend to appear in headless NPs. In Chinese, it is possible to omit the head noun in an NP when there is sufficient information provided from the context and the omitted information is inferred. Classifiers normally contribute a lot of semantic information to enable recoveries of the lost heads as in (1.19a).

- (1.19) a. 我 要 三 张  
           *wo yao san zhang*  
           I want three CL  
           I want three pieces.
- b. 我 要 三 个  
           *wo yao san ge*  
           I want three GE<sub>cl</sub>  
           I want three ones.

In (1.19), the classifier *zhang* is normally associated with nouns denoting entities with a flat surface. Thus even when there is no head noun, the speakers can get semantic information about the omitted noun head from the classifiers. As to (1.19b), the semantic information inferred from *ge* is limited because *ge* does not imply additional information about entities denoted by the omitted noun. Accordingly, based on Myers' (2000: 196) statistical analysis, *ge* does not occur in such situations as often as specialized classifiers.

In sum, *ge* as a general classifier has the same individualizing function as specialized classifiers but it does not denote any specific characteristic of entities denoted by nouns it associates with. Thus, *ge* does not have a specific semantic meaning and is regarded as a default classifier. But because of *ge*'s semantic properties, it does not often appear in headless NPs. Apart from such distribution preferences, *ge* as a classifier shares the syntactic properties of Chinese classifiers, such as co-occurring with numerals (semantically) and nouns, not being iterative, and not being able to be modified by adjectives. In post-verbal position, however, when the numeral *yi* 'one' is omitted, *ge* demonstrates an atypical collocational ability in some instances. Section 1.4 presents post-verbal *ge*'s puzzling syntactic behaviours with relevant examples.

## 1.4 Ge in Post-verbal Position

*Ge* as a classifier has the function of individualizing entities denoted by nouns it is associated with and *ge* and a numeral indicate the number of a noun. When *ge* is used in post-verbal position, especially when the numeral *yi* 'one' is not present, *ge* co-occurs with elements which do not require classifiers, as instantiated in (1.2) and (1.3) at the beginning, here repeated as (1.20a) and (1.20b), respectively.

- (1.20) a. 我们      去      散      个      步。  
              *women*   *qu*       *san*       *ge*       *bu*  
              we       go       scatter   GE   step  
              Let's have a walk.

- b. 我            请        你        去        那里    吃    个    饱。  
      *wo*        *qing*    *ni*        *qu*       *nali*    *chi*    *ge*    *bao*  
      I           invite   you       go       there   eat   GE   full  
              I'll treat you a meal there and you can eat as much as you can.

The noun *bu* ‘step’ in (1.20a) is a collocational object with the verb *san* ‘scatter’ and it is used here as a non-referential noun. Thus, the noun *bu* ‘step’ does not need a classifier to instantiate individual entities. In (1.20b), the element following *ge* is not nominal. *Bao* ‘full’ is a typical predicative adjective in the Chinese language and denotes the result/extent of the eating action designated by the preceding verb *chi* ‘eat’. So *ge* in (1.20b) does not behave as typical classifiers which collocate with nominal constituents. In both instances, the presence of *ge* does not affect the grammaticality of the expressions (despite some semantic changes) but specialized classifiers cannot replace *ge* in these expressions. Moreover, when *ge* is used in these expressions, it does not take any numerals except for *yi* ‘one’ which also tends to be omitted. *Ge* in (1.20b) precedes an adjective and therefore cannot be a classifier. Although *ge* in (1.20a) is followed by a noun, *bu* ‘step’ is not referential. Li and Thompson (1981) suggested that NPs can be divided into referential NPs which refer to specific entities and non-referential NPs which refer to a general concept. They pointed that only referential NPs can bear numbers and be accompanied with classifiers. In addition, the Num+CL+Noun sequence can also be preceded by demonstratives to specify definite meaning. *Ge* in (1.20) cannot co-occur with any demonstrative. These facts indicate that *ge* in (1.20a) followed by a non-referential noun is less likely a classifier.

Moreover, *ge* is also found used between a verb and its object, which is a quantified NP, as in (1.21).

- (1.21) 去 买 个 三 五 件  
*qu mai ge san wu jian*  
 go buy GE three five CL

Go to buy some clothes.

As discussed in 1.2.3, Num+CL sequence before noun cannot iterate, but this rule contradicts with (1.21). Thus, a possible explanation is that *ge* in (1.21) is not a classifier.

As mentioned in section 1.2.3, *ge* as a general classifier can replace most (if not all) specialized classifiers without making a significant meaning difference. In some instances, however, when the numeral *yi* ‘one’ is not present, the substitution of *ge* with a specialized classifier in the post-verbal position causes the meaning change as in (1.22).

- (1.22) a. 他 要 去 买 个 绳。  
*ta yao qu mai ge sheng*  
 he want go buy GE rope  
 He wants to buy some rope (do a rope-buying thing).

- b. 他 要 去 买 根 绳。  
*ta yao qu mai gen sheng*  
 he want go buy CL rope  
 He wants to buy a rope.

In (1.22b), *gen* is a specialized classifier used to categorize entities with a long shape and thus it is associated with *sheng* ‘rope’ which denotes an entity with this property. As a general classifier, *ge* is possible to match with the noun *sheng* ‘rope’ as a substitute of the specialized classifier *gen*. According to Myers (2000), *ge* does not often replace classifiers of shape, because the substitution may cause the loss of shape information of the entities denoted by nouns and incur some meaning change. Thus, compared with (1.22b), (1.22a) with *ge* does not mean the same thing. (1.22a) tends to be interpreted as a rope-buying event and the quantity of rope is underspecified; (1.22b) means to buy exactly one piece of rope. Thus, it indicates that the use of *ge* is more event-related rather than entity-individualizing.

In sum, *ge* in a post-verbal position can be followed by non-referential nouns, predicative adjectives, quantified noun phrases, etc.. When *ge* precedes non-referential nouns and quantified noun phrases, it does not denote the discrete existence of entities denoted by the following noun and therefore it does not need to co-occur with any numeral. Thus, the function of post-verbal *ge* in the above instances is mysterious since it does not match the properties of typical classifiers.

## 1.5 Research Questions and Thesis Organization

The main task of this thesis is to investigate the function of post-verbal *ge* illustrated in section 1.4 and its relationship with classifiers.

As summarized in section 1.1, there are four mainstream arguments on the function of post-verbal *ge*, and each of them reveals certain semantic and syntactic properties of post-verbal *ge*. One of the features of the previous research is that the researchers focus on one or some

variants of post-verbal *ge* and try to provide a generalized claim about all instances of post-verbal *ge* used in Mandarin. Another feature is that the research focus was on *ge* alone and few discussions were made on the collocations and contexts it appears. In addition, very little work has been done on the emergence of the mysterious function of post-verbal *ge* or the links between *ge* as a classifier and this new function. The detailed analysis and evaluation of previous research are done in Chapter 2.

This thesis aims to provide a comprehensive explanation on the mysterious function of post-verbal *ge* by exploring its diachronic development and further address the syntactic-diachronic association by analyzing the historical link between the classifier *ge* and post-verbal *ge* of the special function. In order to achieve this goal, *ge* is studied together with its collocations instead of by its own. In other words, this thesis focuses on the features and diachronic development of [V *ge* X] as a whole. The main research questions of the thesis include:

1. What are the syntactic and semantic properties of post-verbal *ge* of the special use?
2. Is post-verbal *ge* of the special use related to the classifier *ge*? If so, how are they related?
3. How did post-verbal *ge* develop the special function and what is the unit which underwent the development?
4. What are the similarities and differences between various types of the [V *ge* X] pattern? And what are the relationships between these variants?

Aiming at answering these questions, the thesis is organized as follows:

Chapter 2 analyzes the existing research on the special use of post-verbal *ge* and lists some prominent problems of these works. As listed above, there are 4 mainstream arguments on the function of *ge* in the post-verbal position. However, they are all somehow problematic. In Chapter 2, comparisons are made between post-verbal *ge* and secondary predicate marker *de*, verbal classifiers and nominalizers. Then I conclude that post-verbal *ge* is distinct from all these categories.

In order to fill the gaps in the existing research, the thesis is designed as a corpus-based qualitative research. The corpus used in this research and the detailed data classification

method is present in Chapter 3. To complete the research tasks of this thesis, I use the Contemporary Chinese corpus of Institute of Applied Linguistics Ministry of Education (CNCorpus) and the corpus of Centre for Chinese Linguistics from Beijing University (CCL corpus) to collect data of the contemporary Chinese language and historical Chinese, respectively. In this chapter, I first introduce the corpora I used in this research with comparison with other corpora and the search method is explained according to some features of post-verbal *ge* discussed by the existing literature as well as the research targets. Section 3.4 is devoted to the categorization of the collected data and the purpose of doing so. The limitations of the data collected and how these drawbacks may affect the results of this research are discussed as well.

Based on the data collected from the corpus, Chapter 4 presents a thorough analysis of semantic and syntactic properties of post-verbal *ge* of the special function. Various types of the specially used *ge* in the post-verbal position are examined and then I generalize their common syntactic and semantic features. Based on these features, the specially used post-verbal *ge* is compared with the classifier *ge* in order to see the links between them.

Chapter 5 focuses on the historical development of post-verbal *ge*. The research starts to examine the origin of *ge* as a classifier and then explores its changes, mainly semantic changes and change of its collocational range. Then two new functions of *ge* appeared in the 11<sup>th</sup> to 14<sup>th</sup> century are described.

Based on the findings in Chapter 4 and Chapter 5, Chapter 6 summarizes the functions of *ge* in the post-verbal position and how it developed the new functions. In the process of the development, *ge* altogether with its collocation changes not only in their syntactic relation but also the function of the whole expression. Therefore, the construction grammar framework is applied to the analysis of the emergence of the special use of post-verbal *ge* and its historical development. The main reason for choosing this framework is because it attaches equal importance to both form and function of a whole pattern. In Chapter 6, I first introduce the construction grammar framework and its application in diachronic research; then I argue that the specially used *ge* and its collocation, i.e. the preceding verb and the following elements, form a construction. Based on this argument, I analyze that the emergence of the specially used *ge* in the post-verbal position is a process of constructionalization. A detailed discussion of the changing mechanism is presented as well.



Chapter 7 is the conclusion in the form of answers to all the research questions.

## Chapter 2 An Overview of the Literature on the Function of Post-verbal *Ge*.

### 2.1 Introduction

As listed in Chapter 1 (repeated below), there are four mainstream arguments on the function of post-verbal *ge* when collocating with non-referential nouns and non-nominal elements, such as predicative adjectives, verbs, and clauses.

- 1) *Ge* is still a classifier (Zhu 1982, Zhu 2000, Shang 2009, Ren 2013).
- 2) *Ge* is an object marker (Zhang 2003, Shi and Lei 2004, Wu 2004, Shang 2009).
- 3) *Ge* is a verbal classifier (Zhang 2009, Zhou 2011).
- 4) *Ge* is a *buyu* ‘non-object complement’ (secondary predicate) marker (Wu 1982, You 1983, Song 1993, Zhang 2003, Zhang 2009).

The first three arguments are developed from Lü (1984) and the fourth argument is also related to this work. Lü (1984), as one of the most influential analysis on *ge* in post-verbal position, first proposed these three functions of post-verbal *ge* based on its collocation types. In his study, when post-verbal *ge* co-occurs with a noun that does not function as a collocational object of the preceding verb, it is still a classifier. That is to say, Lü (1984) claimed that *ge* in (2.1a) (=example (1.22a) in Chapter 1) is a classifier but (2.1b) (=example (1.2) in Chapter 1) is not.

- (2.1) a. 他      要      去      买      个      绳。  
          *ta      yao      qu      mai      ge      sheng*  
          he      want      go      buy      GE      rope  
          He wants to buy some rope (do a rope-buying thing).
- b. 我们    去    散      个    步。  
          *women    qu    san      ge    bu*  
          we      go    scatter    GE    step  
          Let's have a walk.

Lü (1984) also indicated that when post-verbal *ge* collocates with quantified NPs as in (2.2) (=example (1.21) in Chapter 1), it is also considered as a classifier. He argued that the

quantified NP can be considered denoting a collection of entities and the preceding *ge* marks this collection as a discrete unit. In this sense, *ge* in (2.2) can be considered as a classifier.

- (2.2) 去 买 个 三 五 件 衣服。  
*qu mai ge san wu jian yifu*  
 go buy GE three five CL clothes

Go to buy some clothes.

Lü (1984) regarded (2.1b) is an instance of idiomatic VP expression in which *ge* is inserted. The term ‘idiomatic VP’ used by Lü (1984) covers not only splittable V-O compounds such as *sanbu* ‘walk’ in (2.1b) but also other verb phrases, which are used in an idiomatic way as in (2.3).

- (2.3) ... 看 个 屋子  
 ... *kan ge wuzi*  
 ... look GE house  
 ... Take care of the house (briefly).

(example from Lü (1984: 148) )

*Kanwuzi* does not mean ‘to look at the house’ by simply combining the literal meaning of each part of the phrase. Here it is used in a non-compositional way with the meaning of ‘to take care of the house’. Lü (1984) pointed that *ge* in these idiomatic VPs is more semantically related to the VP rather than to the following NP alone. That is because *ge* in expressions such as (2.1b) and (2.3) denotes the occurrence frequency of the event designated by the VP as a whole. Lü (1984) suggested that *ge* in idiomatic VPs as instantiated in (2.1b) and (2.3) has a similar function to a set of morphemes, called verbal classifiers. Unlike the classifiers<sup>6</sup> introduced in Chapter 1 that are used in NPs, verbal classifiers in the Chinese language are used with numerals in VPs to denote the frequencies of event occurrences designated by the VPs.

When post-verbal *ge* precedes an prototypically non- nominal element, such as (2.4), Lü (1984) viewed *ge* as a ‘connecting word’. In (2.4a), *xinxian* ‘fresh’ is a prototypical adjective denoting a certain quality or property. *Zijin* ‘commit suicide’ in (2.4b) can be used in a predicate position in a sentence and co-occur with an aspectual marker such as *le*, *guo*, *zhe*. Thus, *zijin* ‘commit suicide’ in Chinese is commonly considered as a verb. In (2.4c), *ge* is

<sup>6</sup> In the remainder of this thesis, the term ‘classifier’ is used to refer to nominal classifiers unless otherwise stated.

followed by an adjective phrase consisting of a pair of antonyms, *gao* ‘high’ and *xia* ‘low’. In (2.4d), the expression *rencai liangkong* is considered as a clause, since it has a complete sentence structure and can be used independently (Luke 2006). *Ren* ‘people’ and *cai* ‘fortune’ form a coordinate NP which functions as the subject and *liangkong* ‘are both lost’ is its predicate. So these two parts form a subject-predicate structure and (2.4d) is an instance where *ge* is followed by a clause.

- (2.4) a. 吃 个 新鲜  
*chi ge xinxian*  
 eat GE fresh  
 Taste something new
- b. 寻 个 自尽  
*xun ge zijin*  
 Look.for GE suicide  
 want to commit suicide
- c. 知 个 高 下  
*zhi ge gao xia*  
 know GE high low  
 learn which is better
- d. 落 个 人 财 两 空  
*Luo ge ren cai liang kong*  
 fall GE people fortune two empty  
 End up with having nothing

(examples adapted from Lü (1984) )

Lü (1984) claimed the elements following *ge* are in the object position of the preceding verb and semantically they denote nominal meanings in this position. He pointed that these elements remain in their original categories and are not nominalized. They need to co-occur with *ge* by analogy with nominal objects in order to mark their special object role. *Ge* in these instances is labelled as ‘connecting word’ to mark these atypical objects. However, Lü (1984) also admitted that it is something of a compromise since the origin of *ge* is not taken into consideration.

Lü (1984) categorized three functions of *ge* in post-verbal position based on its collocations:

- 1) *ge* is still a classifier when it is followed by a noun or quantified NP (excluding NPs as the collocational object in idiomatic VPs )
- 2) *ge* is a verbal classifier when it is followed by NPs as the collocational object in idiomatic VPs.
- 3) *ge* is a connecting word with object marking function when it is followed by non-nominal elements.

Lü (1984) is the first study focusing on the use of post-verbal *ge*. It is so influential that most of the later analysis on the function of post-verbal *ge* is developed from these three functions. On the other hand, it is also imperfect in some aspects. First, as analysed in Chapter 1, when post-verbal *ge* is followed by a noun or an NP, as in (2.1) and (2.2), *ge* cannot be replaced by other specialized classifiers because it does not individualize the following entity or group of entities. It is more event-related, rather than entity-related. So it is not accurate to simply claim *ge* in these instances as a classifier. Second, when *ge* is inserted in an idiomatic expression as in (2.3), it indicates the frequency of the event occurrences but it has many differences from typical verbal classifiers. These differences are discussed in section 2.3. Third, as to the third function listed above, Lü (1984) did not explicitly explain how to understand the non-nominal element following *ge* as an object of the preceding verb. In addition, as Lü (1984) admitted, he did not analyse how to link classifier *ge* to ‘connecting word’ *ge*.

In section 2.2, some other widely cited analysis on *ge* in the post-verbal position is introduced as a response to the remaining problems in Lü (1984). In section 2.3, I evaluate all these arguments and point out the limitations of the current research.

## **2.2 Other Literature on the Function of Post-verbal Ge.**

Unlike Lü (1984), Shang (2009) tried to find the links between the classifier *ge* and its other special functions and organize these functions under one category. He claimed that post-verbal *ge* is a classifier in all the instances. Shang (2009) compared expressions of normal verb-object structure and V+ *ge* + VP structure, and he noticed that these two types of expressions differ in terms of temporal meaning.

- (2.5) a. 自 古 英 雄 爱 美 人。  
*zi gu yingxiong ai meiren*  
 from old hero love beauty  
 Heroes always love beauties.
- b. 我 就 想 爱 个 当 解 放 军  
*wo jiu xiang ai ge dang jiefangjun*  
 I just want love GE<sub>cl</sub> COP soldier  
 的 女 婿。  
*de nüxu*  
 ASSOC husband  
 I just want to find a soldier to be my husband.
- c. 让 我 一 次 爱 个 够。  
*rang wo yi ci ai ge gou*  
 let me one CL<sub>v</sub> love GE satisfy  
 Let me love as much as I can.  
 (examples = (3) from Shang (2009:31))

He pointed that all three instances in (2.5) involve the same verb *ai* ‘love’, which is a stative verb, but they do not denote the same aspectual meaning. As in (2.5a), there is no classifier in the post-verbal NP and (2.5a) designates a state of atelic and unbounded aspectual meaning. In (2.5b), *ge* as a classifier appears in the object NP. Shang (2009) noted that the existence of the classifier *ge* not only makes the NP referential but also makes the expression telic and bounded. Similarly, in (2.5c), the telic and bounded meaning is also incurred by the presence of *ge*, which nominalizes the verb *gou* ‘satisfy’ and therefore provides an endpoint to the state of loving. Therefore, Shang (2009) argued that classifiers in Chinese have the function of transforming nouns in the Chinese language from referring to ‘kinds’ to referring to ‘entities’. This argument is also in line with the hypothesis of Cheng & Sybesma (1999) that Chinese nouns are all mass and they need classifiers or measure words to mark countability. *Ge* as a general classifier is able to make mass nouns and nouns referring to abstract concepts to be countable. Shang (2009) analyzed post-verbal *ge* when co-occurring with VPs by analogy with the classifier *ge* and claimed that *ge* nominalizes the following VP and the nominalized VP marks the endpoint of the event designated by the whole expression. Therefore, the event designated by the whole expression is perceived as bounded and discrete.

According to Shang (2009), post-verbal *ge* as a classifier nominalizes the following non-nominal elements and enables a countable reading of the nominalized concepts. It is clear that in (2.5a) and (2.5b) when *ge* is followed by nouns, they form object NPs. However, the most obvious problem in Shang (2009) is that he did not clearly identify the grammatical role of the nominalized VP in (2.5c).

Lü (1984) especially emphasized that in (2.4), post-verbal *ge* does not nominalize its following non-nominal elements but these non-nominal elements are nevertheless in the object position. Lü (1984)'s claim seems to be contradictory: how can non-nominal elements be objects? Many other researchers partially concur with Shang (2009) and Lü (1984): *ge* nominalizes the following elements and the nominalized elements are the objects of the preceding verbs.

Wu (2004) analysed the use of *ge* in the post-verbal position in detail and especially focused on the cases in which post-verbal *ge* precedes non-referential nouns and non-nominal elements. She provided some evidence for the argument that *ge* is a nominalizer. First, by quoting Tenny (1987) and Borer (1994) who argued that nominal objects 'may be necessary for the interpretation of a predicate as a telic', Wu (2004: 31) suggested that the non-nominal elements following *ge* are actually nominalized objects because of the telic interpretation of the predicate (Zhang 2003, Shi & Lei 2004, Shang 2009). She noticed that adjectives following *ge* may not undergo either ABAB reduplication or A-not-A question formation as instantiated in (2.6a) and (2.6b), respectively, while normal predicative adjectives do not have such limitation as in (2.7) for comparison.

(2.6) a. \*洗 个 干净 干净。  
*xi ge ganjing ganjing*  
 wash GE clean clean

b. \*吃 个 饱 不 饱  
*chi ge bao bu bao*  
 eat GE full not full

(2.7) a. 让 屋子 干净 干净。  
*rang wuzi ganjing ganjing*  
 make house clean clean

Let's make the room clean (clean the room).

b. 他 饱 不 饱?

*ta bao bu bao*  
he full not full

Is he full or not?

Thus, Wu (2004) implied that post-verbal *ge* have changed the category of the words that follow it and to be more specific, it is highly possible that these adjectives are nominalized. In other words, *ge* is a nominalizer. In addition, Wu (2004) further suggested a specific syntactic role of *ge* with nominalizing function as a weak determiner. She suggested that the nominalizer *ge* is not in the classifier position, but in a ‘higher functional head’ which ‘enables a DP to be referred to as an argument’ (2004: 33-34). Based on this conclusion, Wu (2004) corrected Lü (1984) that when post-verbal *ge* precedes a quantified NP as in (2.2), here repeated as (2.8), *ge* is not a classifier.

(2.8) 去 买 个 三 五 件 衣服。

*qu mai ge san wu jian yifu*  
go buy GE three five CL clothes

Go to buy some clothes.

Shi and Lei (2004) also agreed that post-verbal *ge* nominalizes its following non-nominal elements, and they further argued that *ge* in this structure is not a classifier, but a marker of atypical objects. The so-called atypical object includes adjectives, idioms, and clauses following *ge* in the post-verbal position. Unlike Lü (1984) who suggested that these elements following *ge* still remain their original grammatical categories unchanged, Shi and Lei (2004) claimed that *ge* in this pattern nominalizes these elements and therefore grants them the object role in the post-verbal position. The nominalized elements denote individualized and specific activity or event and the expression designates a specific, telic and bounded event. Post-verbal *ge* enables the individualized activity or event reading, which links to its classifier origin.

Despite some differences in syntactic analysis, Shang (2009), Wu (2004) and Shi and Lei (2004) all agree that post-verbal *ge* nominalizes its following non-nominal elements and the nominalized elements are the objects of the preceding verbs. However, they did not present direct evidence to show that the original non-nominal elements following *ge* have any nominal properties. Wu (2004)’s arguments above are just indirect evidence suggesting the word categories may have changed. Moreover, in many instances, even though *ge* nominalizes its following elements, they semantically cannot be interpreted as the objects of



the preceding verbs. They did not include the instances like (1.3) here repeated as (2.9), in which the adjective following *ge* cannot be interpreted as the object of the preceding verb.

- (2.9) 我 请 你 去 那里 吃 个 饱。  
*wo qing ni qu nali chi ge bao*  
 I invite you go there eat GE full

I'll treat you a meal there and you can eat as much as you can.

In (2.9), the object of the verb *chi* 'eat' is underspecified since it is not important information in this context but the adjective *bao* 'full' following *ge* cannot be interpreted as the object of *chi* 'eat'. Many linguists especially focused on the function of *ge* in the instances like (2.9) and they argued that *ge* when followed by a non-nominal element, especially an adjective, is a non-object complement (secondary predicate) marker.

You (1983), Wu (1982) and Song (1993) think *ge* is a non-object complement (secondary predicate) marker, for the following reason. First of all, they all argued that *ge* in the expressions like (2.9) normally cannot be deleted. In (2.9), without *ge*, the sentence is not acceptable to a native speaker. Thus, post-verbal *ge* preceding adjectives is required to be present to form a grammatical expression. Second, *ge* can be substituted with the typical non-object complement (secondary predicate) marker 得 *de* as in (2.10).

- (2.10) a. 他 把 衣服 洗 个 干净。  
*ta ba yifu xi ge ganjing*  
 he BA clothes wash GE clean

He washed the clothes clean.

- b. 他 把 衣服 洗 得 干净。  
*ta ba yifu xi de ganjing*  
 he BA clothes wash DE clean

He washed the clothes clean.

Both *ge* and *de* are located in a post-verbal position and followed by an adjective which provides additional information about the washing event designated by the preceding verb. To be more specific, in (2.10b), *ganjing* 'clean' following *de* and *ge* indicates the resultant state of the action of washing and can be interpreted as 'the clothes are clean after being washed by him'. Song (1993) noted that since *ganjing* 'clean' is not nominal but predicative, *ge* in (2.10a) is obviously not a classifier. Since post-verbal *ge* can precede adjectives, unlike the

other classifiers that can only co-occur with nouns, by analogy with the *de*, *ge* in (2.9) and (2.10) is considered as a special non-object complement (secondary predicate) marker.

Although *ge* and *de* are normally used in the same position and have some features in common, they are not completely interchangeable. Moreover, there are attested instances in which *ge* and *de* are used together in the post-verbal position followed by adjective phrases. The details of their differences are discussed in section 2.3.

Zhang (2009) also agreed that the non-nominal elements following *ge* are non-object complements (secondary predicates) of the preceding verbs. However, different from You (1983), Wu (1982) and Song (1993)' argument, Zhang (2009) did not simply label *ge* as a non-object complement marker; he argued that post-verbal *ge* preceding non-nominal elements, unlike *de*, is the head of the non-object complement constituent for the following reasons. First of all, according to Huang (1982, 1994), a verb can be followed by 'its subcategorized non-object complements or by an FDRM expression<sup>7</sup>, but not by both' (Zhang 2009: 18, footnote 8). In other words, verbs can be followed by only one non-object complement each time. Since post-verbal *ge* with non-nominal elements cannot co-exist with phrases of frequency or duration, as instantiated in (2.11), *ge* + Adjective is a non-object complement of the preceding verb.

- (2.11) a. \*他 把 衣服 洗 个 干净 三 次。  
*ta ba yifu xi ge ganjing san ci*  
 he BA clothes wash GE clean three CL<sub>v</sub>

He washed the clothes clean three times.

**(Frequency)**

- b. \*他 把 衣服 洗 个 干净 三 天。  
*ta ba yifu xi ge ganjing san tian*  
 he BA clothes wash GE clean three day

He washed the clothes clean three days.

**(Duration)**

As mentioned in the footnote 3 above, since the non-object complements are also recognized as secondary predicates, the *ge* +non-nominal, according to Huang(1992), is in fact a clause

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<sup>7</sup> FDRM represents frequency, duration, result and manner (Huang 1994).

which shares the subject of the main clause. This clause, i.e. (SUBJ) + *ge* + Non-nominal, marks the endpoint of the action designated by the primary predicate.

In addition, Zhang (2009) pointed that *ge* and the adverb *hen* ‘very’ in the non-object complement position (underlined) can substitute each other but cannot co-exist as in (2.12).

- (2.12) a. 吃 得 个 干净 。  
*chi de ge ganjing* .  
 eat DE GE clean  
 Clean up all food (by eating)
- b. 吃 得 很 干净 。  
*chi de hen ganjing* .  
 eat DE very clean  
 Clean up all food (by eating)
- c. \*吃 得 个 很 干净  
*chi de ge hen ganjing*  
 eat DE GE very clean

(Examples from (Zhang 2009:19), example (25))

By citing Hale and Keyser (1993), Zhang (2009) argued that *ge* and *hen* ‘very’ cannot co-exist in the non-object complement clause because they have a similar syntactic function, i.e. the head of the adjective phrase. The difference is *ge* in this position is to mark the polarity on the degree scale designated by the adjective. That is to say, in (2.12a), *ganjing* ‘clean’ following *ge* indicates the ultimate degree of cleanness while (2.12b) with *hen* just indicates a certain degree on the scale. Zhang (2009) categorized post-verbal *ge* when followed by adjectives as a ‘light adjective’ heading the non-object complement clause.

Zhang (2009) argued *ge* in such a syntactic context has a function which indicates the ultimate degree of the property designated by the non-nominal elements. According to Zhang (2009), if *ge* has a similar function to the intensifier *hen* ‘very’, it can have a similar syntactic behaviour to *hen* ‘very’. In fact, *ge* + Adjective cannot be used as a primary predicate like *hen* + Adjective as shown in (2.13).

- (2.13) a. 她 很 漂亮。  
           *ta    hen   piaoliang*  
           she very beautiful  
           She is very beautiful.
- b. \*她 个 漂亮。  
           *ta    ge   piaoliang*  
           she GE beautiful

This pair of examples indicates that Zhang (2009)’s explanation is still not perfect.

Wu(1982), You(1983), Song(1993) and Zhang (2009) all agree that the non-nominal elements following post-verbal *ge* are not nominalized because they are the non-object complements (secondary predicates) of the preceding verbs. On the contrary, Wu(2004), Shi and Lei(2004) and Shang(2009) believe *ge* nominalizes the following non-nominal elements and enables them to be the objects of the verbs. In fact, both arguments are partially correct, because they are related to two types of expressions. As instantiated above, *bao* ‘full’ in (2.9) cannot be interpreted as an entity being eaten or consumed; but *xinxian* ‘fresh’ in (2.4a) can be understood as a certain entity with the property of being fresh that can be consumed. Thus, the role played by the preceding verbs cannot be overlooked when studying the special function of *ge*.

Zhou (2011) tried to avoid the object-complement debates and chose to solve the problem from other perspectives. As listed above, Lü (1984) considered post-verbal *ge* in idiomatic VPs (2.1b)(2.3) to be a verbal classifier because the expressions denote the frequency of the event occurrences. But as briefly pointed in section 2.2, post-verbal *ge* does not behave exactly the same as the typical verbal classifiers. Zhou (2011) developed the position taken by Lü (1984) by realizing the distinctions between *ge* and verbal classifiers. She agreed with Lü (1984) that when post-verbal *ge* is followed by a normal NP, which is not the collocational object of the preceding verb as in (2.1a), *ge* is still a classifier. When the NP following *ge* is a collocational object of the preceding verb, Zhou (2011) categorized *ge* in these expressions as a ‘special verbal classifier’. By and large, she followed Lü (1984)’s argument that post-verbal *ge* is a verbal classifier when co-occurring with the collocational object of the verb, but *ge* differs from typical verbal classifiers in two ways. First, although post-verbal *ge* in this type

of collocations has the function of ‘measuring (or counting)’ how many times the event/activity designated by the expression happens, unlike normal verbal classifiers, *ge* rarely co-occurs with numerals other than *yi* ‘one’. In other words, *ge* in instances like (2.1b) and (2.3) is a verbal classifier but only denotes one occurrence of the event or activity designated by the expression. Second, unlike other verbal classifiers, the use of *ge* in idiomatic VPs is restricted by the style of context. That is to say, *ge* tends to be used in informal contexts as in (2.14b) while normal verbal classifiers do not have such constraints (2.14a).

- (2.14) a. 我 很 想 同 您 见  
*wo hen xiang tong nin jian*  
 I very want with you (formal) see  
 一 次 面。  
*yi ci mian*  
 one CLv face

I really would like to meet you.

- b. 我 想 和 你 见 个 面。  
*wo xiang he ni jian ge mian*  
 I want with you see GE face

I want to meet you.

(Examples from Zhou (2011:61))

In (2.14a), *ci* in the post-verbal position is a verbal classifier with the meaning of time, indicating the occurrence frequency of the meeting event. (2.14a) is a relatively more formal expression than (2.14b). *Ge* in (2.14b) according to Zhou (2011) also indicates the single occurrence of the meeting event, but *ge* tends to be used in a more colloquial context, such as a conversation between friends or familiar people.

Furthermore, *ge* as a special verbal classifier tends to be used with colloquial or neutral verbs such as in (2.15a) but not with formal style verbs as in (2.15b).

- (2.15) a. 吃 个 饭  
*chi ge fan*  
 eat GE meal  
 have a meal

- b. 就            个    餐  
      *jiu*            *ge*    *can*  
      approach    GE    meal  
      (to dine)

*Jiucan* ‘dine’ in (2.15b) is a formal counterpart of *chifan* ‘eat’ in (2.15a) and (2.15b) with *ge* is less acceptable. This preference of informal contexts of *ge* is not obvious with other typical verbal classifiers according to Zhou (2011).

The argument of Zhou (2011) and Lü (1984) that post-verbal *ge* is a (special) verbal classifier seems to be convincing on the condition that the numeral *yi* ‘one’ before *ge* is not present. Although Lü (1984) commented that the numeral *yi* ‘one’ before *ge* in the post-verbal position tends to be omitted, it is possible to be added back in some instances as in (2.16).

- (2.16) 我    想        和        你    见    一    个    面。  
      *wo*   *xiang*   *he*        *ni*   *jian*   *yi*    *ge*   *mian*  
      I    want    with   you   see   one   GE   face  
      I want to meet you.

In (2.16), *yige* ‘one GE’, unlike the [numeral+ verbal classifier] pattern, cannot be relocated to other positions in the sentence. Instead, it is fixed in the post-verbal position. This fact implies that (*yi*) *ge* is not a separate constituent but a part of another constituent. In other words, post-verbal *ge* has a different grammatical role from verbal classifiers. This is further discussed in section 2.3 below.

In addition to the study on *ge*’s grammatical role, many linguists focused on the discourse function of *ge* in the postverbal position. Zhu (2000) argued that *ge* in the post-verbal position is a ‘quantifier’ in general: when it is followed by an NP, *ge* is a nominal ‘quantifier’ indicating the quantity of entities and when followed by a non-nominal element, *ge* is a degree ‘quantifier’ measuring the degree of a property on the scale. He noted that when *ge* is a degree quantifier, it cannot be deleted. It is obligatory and marks the maximum degree of the resultant state of the action designated by the preceding verb as instantiated by (2.17).

- (2.17) 啤酒    喝        个    一千二净。  
      *píjiu*    *he*        *ge*    *yī.gān.er.jìng*  
      beer    drink    GE    one.dry.two.clean  
      Beer was all consumed without a drop left.

In (2.17), the expression following *ge*, i.e. *yiganerjing* means not a single drop of beer was left at all, which is the extreme degree of ‘being completed’. In this sense, *ge* is a quantifier for (high) degree. Zhu (1982) also expressed the idea that post-verbal *ge* followed by a non-nominal element is semantically linked to its classifier function in the sense of ‘measuring’. He believed that *ge* and its following non-nominal elements are together the non-object complement of the preceding verb and *ge* conveys a subjective meaning of expressing high/extreme degree.

Some other researchers (Wu 2009, Ren 2013), however, noticed that post-verbal *ge* can also be a low degree quantifier when it is followed by a noun as in (2.18).

(2.18) 我们 来 帮 个 忙。  
           *women lai bang ge mang*  
           we come help GE busyness

Let’s give a hand.

In (2.18), *ge* is used in an idiomatic VP and the expression implies that to offer some help is not a big thing from the perspective of the speaker and the speaker is willing to do it. Thus, instead of maximizing the degree, *ge* in (2.18) minimizes the efforts of carrying out the action designated by the expression. Ren (2013) suggested that post-verbal *ge* plays a subjective quantitating role: when *ge* is collocating with NPs, it functions as a ‘subjective diminutive role’; when post-verbal *ge* is followed by a non-nominal element, it becomes a ‘subjective incrementing role’ as in (2.17). Different from Zhu (1982), Ren (2013) explained that the degree quantifying function of *ge* is developed from its basic classifier function, i.e. individualizing. That is to say, *ge* individualizes nominal types into atomic entities denoted by the following NP, and therefore attaches a ‘minimum’ reading to the NP. When *ge* is followed by a non-nominal element, *ge* as a nominalizer enables a specific and concrete reading of the element following and therefore increments the concept. Ren (2013) considered post-verbal *ge* in general as a classifier with an additional degree quantifying function.

In a similar fashion, Wu (2009) clarified the term ‘diminutiveness’ by referring to Jurafsky (1996:557), who presented that the diminutive is a concept of ‘smaller than the prototypical exemplar *x* on a scale *y*’. Wu (2009) applied this concept to explain the diminutive role of post-verbal *ge* and proposed a hypothesis that *ge* is a degree quantifier playing a diminutive role in all types of instances. Wu (2009)’s research shares a similar view with Ren (2013) on

the diminutive reading of the NP following *ge* but Wu (2009) provided a different analysis on the diminutive reading of non-nominal elements following *ge*. According to her, the adjective *ganjing* ‘clean’ alone in example (2.19) (=example (2.10a)), which itself does not indicate the ultimate degree of cleanness, denotes an unbounded state of being clean. Post-verbal *ge* in (2.19) as a diminutive degree quantifier sets a boundary to the state and limits the state to a certain range. In other words, *ge* denotes a minimal degree of ‘cleanness’ which must be achieved.

- (2.19) 他 把 衣服 洗 个 干净。  
*ta ba yifu xi ge ganjing*  
 he BA clothes wash GE clean

He washed the clothes clean.

The main problem of the arguments above on the discourse function of post-verbal *ge* is about the origin of the function. Although there are differences in the arguments proposed, they are all to some extent based on the assumption that *ge* has a degree quantifying function, which is an extension of the measuring function of classifier *ge*. As analysed in Chapter 1, classifiers, unlike measure words, do not have measuring function. The basic function of general classifier *ge* is individualizing rather than measuring. So *ge* cannot ‘quantify’ anything.

Unlike the other linguists who tried to identify the function of post-verbal *ge* exclusively, Zhang (2003) argued that *ge* in the post-verbal position has different functions in different collocations, and all these functions form a continuum without clear dividing points. The concept of the continuum of post-verbal *ge* especially reflects on the instances listed in (2.20).

- (2.20) a. 他 吃 了 个 苹果。  
*ta chi le ge pingguo*  
 he eat ASP GE<sub>cl</sub> apple

He ate an apple.

- b. 吃 个 新鲜  
*chi ge xinxian*  
 eat GE fresh

Taste something new



- c. 他 把 衣服 洗 个 干净。  
*ta ba yifu xi ge ganjing*  
 he BA clothes wash GE clean

He washed the clothes clean.

- d. 他 说 个 不 停。  
*ta shuo ge bu ting*  
 he say GE not stop

He was constantly talking.

Zhang (2003) demonstrated that *ge* in (2.20a) is a classifier that individualizes entities denoted by the following noun. In (2.20b), the adjective following *ge* describes a property via metonymy that is the goal argument of the preceding verb, and therefore, *ge* can be analyzed as an object marker or a classifier, which marks the atypical object *xinxian* ‘fresh’. The adjective *ganjing* ‘clean’ in (2.20c), however, is not an argument of the preceding verb *xi* ‘wash’ because the real object *yifu* ‘clothes’ is preposed to the preverbal position by the morpheme 把 *ba*. Zhang (2003) suggested that *ganjing* ‘clean’ in (2.20c) can only be analyzed as indicating the resultant state of the action designated by the verb. Zhang (2003) also noted that while its following elements are analyzed from objects to non-object complements, post-verbal *ge* is gradually shifted from a pre-attached morpheme (to its following element) to a post-attached morpheme (to its preceding verb). In (2.20a), *ge* as a classifier, as introduced in Chapter 1, is grouped with its following noun; In (2.20b), since *xinxian* ‘fresh’ is an argument of the preceding verb, *ge* functions as a classifier as well and also is grouped with its following element. As to (2.20c), Zhang (2003) proposed two possible analysis: *xi/ ge ganjin* ‘wash/ *ge* clean’ when the focus is on the result of the action or *xi ge/ ganjin* ‘wash *ge/* clean’ if the focus is on the state of the entity that experiences the action, i.e. *yifu* ‘clothes’ in (2.20c). In other words, *ge* in (2.20c) can either be an object marker or a non-object complement marker. *Ge* in (2.20d) is unambiguously a post-attached morpheme to its preceding verb because, in this instance, *buling* ‘not-stop’ is the non-object complement of the preceding verb.

That is to say, post-verbal *ge* and its various types of following elements form a coherent whole. According Zhang (2003), the various functions of post-verbal *ge* can be put on a scale as follows:

classifier (2.20a) > classifier/object marker (2.20b) > object marker/ non-object complement (secondary predicate) marker (2.20c) > non-object complement (secondary predicate) marker (2.20d)

Zhang (2003) commented the scale above demonstrates a continuum from left to right where *ge* functions from a classifier to a structural particle.

The significance of Zhang (2003) lies in the establishment of the continuum, which links all functions of post-verbal *ge* in a coherent system. In addition, Zhang (2003) also noticed that at different points on the continuum, the relation between *ge* and its collocations is not the same. Furthermore, in this continuum, each function of *ge* is not independent of each other; there are internal links connecting each function in the network. Zhang (2003), however, overlooked these links; this is also a gap this thesis aims to fill.

To sum up, the above mentioned pieces of research study the functions of post-verbal *ge* when it is followed by non-referential nouns (2.21a), quantified NPs (2.21b), collocational objects in idiomatic VPs (2.21c), non-nominal elements that function as arguments of the preceding verb (2.21d), non-nominal elements that are secondary predicates in the expression (2.21e) and verbs in their negated form (2.21f).

(2.21) a. 他 要 去 买 个 绳。  
*ta yao qu mai ge sheng*  
 he want go buy GE rope  
 He wants to buy some rope (do a rope-buying thing).

b. 去 买 个 三 五 件 衣服。  
*qu mai ge san wu jian yifu*  
 go buy GE three five CL clothes  
 Go to buy some clothes.

c. 我 想 和 你 见 个 面。  
*wo xiang he ni jian ge mian*  
 I want with you see GE face  
 I want to meet you.

- d. 吃 个 新鲜  
*chi ge xinxian*  
 eat GE fresh  
 Taste something new
- e. 他 把 衣服 洗 个 干净。  
*ta ba yifu xi ge ganjing*  
 he BA clothes wash GE clean  
 He washed the clothes clean.
- f. 他 说 个 不 停。  
*ta shuo ge bu ting*  
 he say GE not stop  
 He was constantly talking

Each researcher puts his/her focus on different types of instances involving post-verbal *ge* and studies the function of post-verbal *ge* from various perspectives. All the above-mentioned stances in different literature can be summarized in Table 2 below.

The previous research has provided valuable insights on the syntactic and semantic properties of *ge* in the post-verbal position. Each study addressed different perspectives and focuses on the topic but they have some common problems. First, most of the studies noticed that the presence of post-verbal *ge* makes the action designated by the expression bounded and telic. The source of the aspectual reading has not been convincingly argued. Second, most of the research focuses on how to resolve the problem i.e. how a classifier can collocate with non-nominal elements. Thus, the discussion on the role played by the preceding verb is limited. Third, the researchers overlooked the links between different functions of post-verbal *ge* and perceived each function as an isolated node in the language. This thesis aims to fill all these gaps.

Moreover, some arguments were generated based on limited understanding of concepts such as the non-object complement (secondary predicate) marker *de*, verbal classifiers, and classifiers. The differences between classifiers and measure words have been discussed in Chapter 1. In section 2.3, the distinctions between *ge* and *de* and verbal classifiers are demonstrated. In addition, many researchers believed that *ge* nominalizes the following non-

nominal elements but without direct evidence. So section 2.3 also discusses if the elements following *ge* are nominalized.

Table 2. Summary of functions of post-verbal *ge* discussed by different researchers

	V+ <i>ge</i> + Non-ref noun (2.21a)	V+ <i>ge</i> + Quantified NP (2.21b)	V+ <i>ge</i> +N (Collocational Object) (2.21c)	V+ <i>ge</i> + NonNom		V <sub>1</sub> + <i>ge</i> + Neg V <sub>2</sub> (2.21f)
				V+ <i>ge</i> +NonNom (argument of the verb) (2.21d)	V+ <i>ge</i> +NonNom (secondary predicate) (2.21e)	
Lü (1984)	Classifier	Classifier	Verbal classifier	Connecting word (atypical object marker)		
Shang (2009)			Classifier		Classifier Nominalizer	
Shi&Lei (2004)			Object marker		Object marker Nominalizer	
Wu (2004)		Weak determiner			Weak determiner Nominalizer	
Zhou (2011)	Classifier		Special verbal classifier			
Wu (1982) You (1983) Song (1993)					Non-object complement (secondary predicate) marker	
Zhang (2009)	Verbal classifier		Verbal classifier		Head of non-object complement (secondary predicate) (≈ complement marker)	
Zhu (2000)	quantifier (≈ classifier)		Quantifier (≈ classifier)		High/extreme degree quantifier	
Ren (2013)			Subjective diminutive role (Classifier)		Subjective incrementing role Nominalizer (≈ Object marker)	
Wu (2009)			Diminutive degree quantifier		Diminutive degree quantifier Nominalizer	
Zhang (2003)	Classifier			Classifier/object marker	Object marker/ Non-object complement (secondary predicate) marker	Non-object complement (secondary predicate) marker

## 2.3 Problems in the Previous Research on [V *ge* X]

In this section, I would like to focus on the distinctions between *ge* and three concepts discussed in the previous research: the non-object complement (secondary predicate) marker *de*, Chinese verbal classifier and nominalization.

### 2.3.1 Post-verbal *Ge* and the Non-object Complement (secondary predicate) Marker *De*

Many researchers agreed that when post-verbal *ge* is followed by non-nominal elements, it is a non-object complement (secondary predicate) marker like *de* (Wu 1982, You 1983, Song 1993, Zhang 2003, et.al). As demonstrated in (2.10) above (here repeated as (2.22)), *de* can replace *ge* in post-verbal position without changing the propositional meaning of the sentence.

- (2.22) a. 他 把 衣服 洗 个 干净。  
ta ba yifu xi ge ganjing  
he BA clothes wash GE clean  
He washed the clothes clean.

- b. 他 把 衣服 洗 得 干净。  
ta ba yifu xi de ganjing  
he BA clothes wash DE clean  
He washed the clothes clean.

By analogy with the typical non-object complement (secondary predicate) marker *de*, *ge* is suggested having the same function, i.e. marking the non-object complement (secondary predicate) in the post-verbal position. However, despite some similarities, *ge* and *de* in the post-verbal position are different in many aspects. Before the comparison between these two morphemes, it is necessary to explain the term 补语 *buyu* ‘non-object complement’ in the sense of secondary predicate and the basic function of *de* first.

The term 补语 *buyu* ‘non-object complement’ mentioned above is not used as a parallel in European language studies, e.g. Noonan (2007), which refers to an element functions as an argument of a predicate. It is defined in Chinese linguistics as an element in a post-verbal position with the function of explaining the predicate by ‘filling it out’ (McDonald 1996). In other words, in Chinese, a non-object complement in the post-verbal position provides

additional information about the event designated by the preceding VP. The additional information includes result, extent, and manner (Lin 2016: 51) and is typically introduced by a marker *de* as illustrated below.

(2.23) a. 他 走 得 哭 了。 (RESULT)

*ta zou de ku le*  
he walk DE cry ASP

He walked (too much) and cried.

b. 他 喝 得 酩酊大醉。 (EXTENT)

*ta he de ming.ding.da.zui*  
he drink DE very.drunk

He was very drunk.

c. 他 听 得 仔细。 (MANNER)

*ta ting de zixi*  
he listen DE attentive

He was listening with attention.

The additional information provided by the ‘non-object complements’ following *de* in the post-verbal position is participant-oriented and express ‘partially independent predications about one participant of the main predicate’ (Lin 2016: 17). All instances in (2.23) involve one participant and two sub-events. (2.23a) indicates walking and crying two events and these two events have a causal relation. Similarly in (2.23b), the two events, drinking and being drunk, also have the causal relation. The event denoted by the constituents following *de* in (2.23a) and (2.23b) indicates result and extent, respectively. However, these two labels are interchangeable and cannot be clearly distinguished. (2.23a) also can be understood as he walked so much and to the extent that it made him cry. Similarly, (2.23b) can be interpreted as that he drank a lot and ended up in the state of being drunk. As to the (2.23c), *zixi* ‘attentive’ following *de* indicates the manner of the listening activity and can also be translated as ‘He pays attention when listening’ depending on the analysis of its syntactic structure. It is easily accepted that the constituents introduced by *de* are also predicates (Huang 1988) since it provides information about the participant. By following Huang (1988)’s hypothesis, the first predicate, e.g. *ting* ‘listen’ (2.23c), is a primary predicate that designates the main action that the subject is doing and the one following *de* is a secondary predicate that functions as an adverbial modifier. In order to avoid confusion, in this thesis, the elements following *de*, which are widely referred to as ‘non-object complements’, is

labelled as secondary predicates (SP). SP in this position can be an adjective as in (2.23) or can be other grammatical categories with a predicative function in Mandarin Chinese, such as VP (2.23a), Chinese four-character idiom (2.23b), and even embedded clause. The particle *de* in these expressions introduces the secondary predicates and I simply refer to it as the marker of SP. *De* as the marker of SP in the post-verbal position can be distinguished from *ge* both syntactically and semantically.

### The Syntactic Behaviours of Post-verbal *Ge* and *De*

First of all, according to Huang (1988), the post-verbal *de* cliticizes to the preceding verb and it does not permit suffixation to the verb or other kinds of insertion between V and *de*. But post-verbal *ge* does not show this restriction.

- (2.24) a. 张三 把 这 件 事 忘 了  
*Zhangsan ba zhe jian shi wang le*  
 Zhangsan BA this CL thing forget ASP  
 个 一干二净。  
*ge yi.gan.er.jing*  
 GE one.dry.two.clean  
 Zhangsan completely forgot this thing.
- b. \*张三 把 这 件 事 忘 了  
*Zhangsan ba zhe jian shi wang le*  
 Zhangsan BA this CL thing forget ASP  
 得 一干二净。  
*de yi.gan.er.jing*  
 DE one.dry.two.clean

*Ge* in (2.24a) in the post-verbal position cannot be replaced by *de* (as shown in (2.24b)) because it allows insertion of other elements between V and *ge*, such as the perfective marker *le* but *de* does not.

Post-verbal *ge* also can be preceded by pronouns including expletive pronouns but *de* cannot as in (2.25).



(2.25) a. 他 要 喝 它 个 大醉。  
*ta yao he ta ge dazui*  
 he want drink it **GE** drunk  
 He wants to drink until sloshed.

b. \*他 要 喝 它 得 大醉 。  
*ta yao he ta de dazui* .  
 he want drink it **DE** drunk

In (2.25), *ta* ‘it’ is an expletive pronoun that denotes an empty set and does not have any explicit meaning. But if a pronoun is referential and is the object of the preceding verb, it may be overtly expressed, but following *de* instead of preceding *de* as in (2.26).

(2.26) 张三 打 得 他 半死。  
*Zhangsan da de ta bansi*  
 Zhangsan beat **DE** him half.dead  
 Zhangsan beat him badly.

In (2.26), the pronoun *ta* ‘him’ is a referential pronoun and is the object of the verb *da* ‘beat’. At the same time, it is also the participant of SP *bansi* ‘half.dead’. In this instance, *ta* ‘him’ as a required argument has to be located after *de* in order to make the expression grammatical. (2.24) (2.25) and (2.26) illustrate that the post-verbal *de* is more associated with the preceding verb like a clitic. By contrast, *ge* in the post-verbal position does not show such strong dependency on the preceding verb.

Second, the non-nominal elements following *ge* in the post-verbal position, unlike *de*, cannot be negated as in (2.27) or questioned as in (2.28).

(2.27) a. 说 得 什么 话, 让 人  
*shuo de shenme hua, rang ren*  
 say ASP what speech, make people  
 听 得 不 明白。  
*ting de bu mingbai*  
 listen **DE** not clear.  
 What do you mean? We do not understand.

- b. \*说 得 什么 话, 让 人  
*shuo de shenme hua, rang ren*  
 say ASP what speech, make people  
 听 个 不 明白。  
*ting ge bu mingbai.*  
 listen GE not clear.

- (2.28) a. 你们 睡 得 如何?  
*nimen shui de ruhe?*  
 you sleep DE how?  
 How was your sleep?

- b. \*你们 睡 个 如何?  
*nimen shui ge ruhe?*  
 you sleep GE how?

In (2.27), *mingbai* ‘(understand) clear(ly)’ following *de* can be negated but when following *ge* it cannot. Similarly, in (2.28a), the descriptive expression following *de* is questioned by *ruhe* ‘how’ but *shui ge ruhe* ‘sleep *ge* how’ in (2.28b) is not grammatical.

Third, degree modifiers can modify SP following *de* but not *ge*. In (2.29), the degree modifier *hen* ‘very’ can modify the SP *tongkuai* ‘happy’ but it cannot modify the same adjective following *ge*.

- (2.29) a. 我们 喝 得 很 痛快。  
*women he de hen tongkuai.*  
 we drink DE very happy.  
 We had a very good drink.

- b. \*我们 喝 个 很 痛快。  
*women he ge hen tongkuai.*  
 we drink GE very happy.  
 We had a very good drink.

To sum up, post-verbal *ge* and *de* are syntactically different because: (a) *de* cliticizes to the preceding verb but *ge* does not; (b) SP following *de* can be negated and questioned but not with *ge*; (c) SP following *de* can be modified by degree modifiers but cannot be modified when following *ge*.

### Semantic Dissimilarities Between Expressions with Post-verbal *Ge* and *De*

Much of the work cited above pointed out that the non-nominal element following *ge* in the post-verbal position indicates the final achievement of the action designated by the preceding verb while SP introduced by *de* does not necessarily denote the resultant meaning (You 1983, Zhang 2003, Zhang 2009 et.al.). As introduced above, SP following *de* can indicate the result, extent and manner of the action designated by the preceding verb, and the result and extent information are not clearly distinguished. In other words, SP following *de* does not necessarily mark the end of activity designated by the verb. We can test this assumption by putting *de* and *ge* in a context requiring telic and bounded reading, as in (2.30).

- (2.30) a. 我们 玩 个 痛快 再 走。  
*women wan ge tongkuai zai zou.*  
 we play **GE** happy again leave.  
 Let's leave after having enough fun.
- b. \*我们 玩 得 痛快 再 走。  
*women wan de tongkuai zai zou.*  
 we play **DE** happy again leave.

(2.30a) consists of two clauses designating two temporal sequential events. The second event, i.e. leaving, will occur when the first one (having fun) finishes. This context requires that the first event is bounded and telic. Since post-verbal *de* does not guarantee telic and bounded aspectual reading, (2.30b) is not grammatical; while (2.30a) is grammatical because it meets the aspectual requirement in this context. This implies, in (2.30a), *tongkuai* 'happy' following *ge* indicates the endpoint of the activity *wan* 'play' and this activity cannot continue once the resultant state of being happy has been achieved. However, *tongkuai* 'happy' following *de* can be interpreted either as the result of playing or the extent of playing so *wande tongkuai* 'play DE happy' does not guarantee a telic and bounded reading.

Many linguists associated this semantic difference simply to the elements following *ge/de* (Zhang 2003, Shi and Lei 2004, Zhou 2011). They argued that adjectives following *ge* tends to indicate the result. The problem is they did not attach enough importance to the expression including the preceding verb as a whole. Non-nominal elements in expressions with post-verbal *de* and *ge* contribute only partial information of the event and the preceding verb designates the other part. The information denoted by non-nominal elements following *ge* and *de* is closely associated with the action designated by the preceding verbs and therefore they

cannot be analyzed independently. As a result, it is more reasonable to discuss V+ *ge* +X and V+ *de* +X as a whole. [V *ge* X] denotes an achievement with telic and bounded aspectual meaning while [V *de* X], by contrast, describes a possible on-going activity with atelic and unbounded aspectual meaning.

In addition, post-verbal *ge* and post-verbal *de* do not have the same semantic constraints on the following non-nominal elements. X in [V *ge* X] tends to denote a meaning of the extreme degree (Zhu 2000, Ren 2013), which is on the extreme end of a degree scale. As in (2.30), *tongkuai* ‘happy’ denotes a state of being happiest and cannot be happier. In (2.31) (=2.22a), *ganjing* ‘clean’ is gradable but in [V *ge* X] it implies that this is the endpoint that the agent can achieve and the agent cannot do more than this. This extreme degree reading in [V *ge* X] is a semantic feature while [V *de* X] does not have.

- (2.31) a. 他 把 衣服 洗 个 干净。  
           *ta ba yifu xi ge ganjing*  
           he BA clothes wash GE clean  
           He washed the clothes clean.

Before moving to the next section, there is another issue worth discussing. *De* and *ge* in some instances are used together in the post-verbal position, as in (2.32), cited from Zhang (2003).

- (2.32) ...若 不 得 人情 时, 这 一百  
           ...*ruo bu de renqing shi, zhe yibai*  
           ...if not have mercy time, this one.hundred  
           棒 打 得 个 七死八活。  
           *bang da de ge qi.si.ba.huo.*  
           stick beat **DE GE** seven.die.eight.live  
           ...If you don’t have the luck, you could be injured severely or  
           killed by being flogged one hundred times.

When *ge* and *de* are used together in the post-verbal position, *de* always precedes *ge* and this [V *dege* X] pattern is less often found in contemporary Mandarin (You 1983, Wang 1985, Zhang 2003, Su 2010). You (1983) commented that *de* and *ge* join together forming a compound as a non-object complement (SP) marker, but *ge* still retains some features as a classifier. Zhang (2003) added that *de* historically is a verb that means ‘to obtain’ and it completed its grammaticalization as a non-object complement (SP) marker as early as 7<sup>th</sup> century while *ge* was just at the initial stage of grammaticalization, from a classifier to a non-object complement (SP) marker. As a result, *de* is placed closer to the verb compared with *ge*.

However, in (2.32), although *de* and *ge* are used successively, they have separate functions. *De* in (2.32) is not a marker of secondary predicate but it indicates a meaning of ‘achievable’. Li and Thompson (1981) discussed *de* of achievable meaning and classified this structure with *de* as a ‘potential form’. Take (2.33) for instance.

- (2.33) 跳      得      过去  
          *tiao*    *de*    *guoqu*  
          jump   DE   over  
          (be able to) jump over

As indicated by the glossing of (2.33), *guoqu* ‘over’ does not only indicate the resultant state of the jumping action but also a potential success of moving over by jumping. Li and Thompson (1981) pointed that *de* in this potential form adds an ‘achievable’ meaning to the expression and functions like an adverb. Therefore, *de* in this potential form is different from that in the other examples where *de* is a secondary predicate marker. Instead, in (2.32), the post-verbal *de* is a morpheme indicating the achievement potential of the action designated by the preceding verb. *Ge* in (2.32) introduces an ending point of the flogging action and adds an aspectual boundary to the event. In other words, in (2.32), *de* has a function of modality and *ge* adds an aspectual meaning.

To sum up, *ge* and *de* in the post-verbal position differ in many aspects. Syntactically, *de* shows stronger dependency on the preceding verb and no other elements may appear between the preceding verb and *de* but *ge* does not show such strong dependency. It is possible to have the perfective marker *-le* and pronouns inserted between the preceding verb and *ge*. The non-nominal predicative elements following *ge* cannot be negated or questioned but secondary predicates following *de* do not have such constraints. Semantically, the non-nominal elements following *ge* denote an extreme degree of extent in [V *ge* X] but they do not have such an interpretation in [V *de* X]. Furthermore, [V *ge* X] as a whole designates a telic and bounded event but the events designated by [V *de* X] are not necessarily telic or bounded. Thus, post-verbal *ge* and *de* do not have the same syntactic behaviour or semantic properties. It is problematic to claim *ge* has the same function as *de*.

### 2.3.2 Ge and Verbal Classifiers

Lü (1984) and Zhou (2011) put post-verbal *ge* in the category of verbal classifiers and Zhou (2011) further clarified that post-verbal *ge* is a special verbal classifier because it does not behave the same as typical verbal classifiers. Post-verbal *ge* shares some features with verbal classifiers but there are also many distinctions between them and these distinctions are discussed in detail in this subsection.

Verbal classifiers and nominal classifiers in Chinese perform similar functions for the verbal category and nominal category, respectively. Verbal classifiers (abbreviated as CL<sub>v</sub>, to distinguish from the nominal classifiers CL) are usually translated as ‘times’ in English (He 2001). For example

- (2.34) 他 看 了 两 遍 书。  
ta kan le liang bian shu.  
he read ASP two CL<sub>v</sub> book  
He read the book twice

Chao (1968) claimed the function of verbal classifiers is to measure ‘the number of times an action takes place’. As illustrated in (2.34), the verbal classifier *bian* is used together with the numeral *liang* ‘two’ in the post-verbal position, followed by a noun which is the object of the verb *kan* ‘read’. This structure can be generalized as [V+ Num+ CL<sub>v</sub> + N], which has a similar surface structure with a nominal classifier in the post-verbal position as in (2.35).

- (2.35) 他 看 了 两 本 书。  
ta kan le liang ben shu.  
he read ASP two CL book.  
He read two books.

However, unlike *ben* in (2.35), verbal classifier *bian* in (2.34) does not specify its following noun *shu* ‘book’ but indicates the frequency of the reading-book event. In other words, the verbal classifier is semantically more related to the verbs rather than to the following nouns. As Chao (1968) observed, there are different types of verbal classifiers and the most frequently used ones, all with a general meaning of ‘time(s)’, are *ci*, *hui*, *tang* (related to walking or travelling events), *xia* (related to repetitive events/ events of short duration), *fan* (related to speaking events of long duration with efforts), *bian* (related to all-over completed events), etc.. Although all these verbal classifiers can be translated as ‘time’ to indicate the

frequency of event occurrences, they are not completely the same. *Ci* and *hui* are relatively neutral, and the other verbal classifiers all have their own semantic components in addition to the basic meaning of ‘time’. Thus, Chao (1968)’s comments on the function of verbal classifiers are not sufficient. Paralleled with nominal classifiers, verbal classifiers do not collocate with verbs arbitrarily; they have certain semantic matching restrictions to verbs. In other words, they identify and classify events designated by verbs. This classification, unlike nominal classifiers, sometimes is highly subjective and embodies the perspective the speaker perceives the activity or event from.

- (2.36) a. 我 去 了 一 次 北京。  
           *wo qu le yi ci Beijing.*  
           I go ASP one CLv Beijing.  
           I went to Beijing once.
- b. 我 去 了 一 趟 北京。  
           *wo qu le yi tang Beijing.*  
           I go ASP one CLv Beijing.  
           I had a trip to Beijing.

In (2.36), for the same ‘going-to-Beijing’ event, the choices of different verbal classifiers indicate different focuses. (2.36a) neutrally describes an event and its frequency while in (2.34b) the classifier *tang* emphasizes the meaning of travelling and implies the efforts for this trip.

Verbal classifiers and nominal classifiers are two categories but somehow intertwined. Some verbal classifiers are derived from nominal classifiers and some verbal classifiers can be used as nominal classifiers. The relationship between these two types of classifiers is very complicated and has not been comprehensively described (Shao 1996, Dickey and Janda 2015). Despite the possible overlapping of verbal classifiers and nominal classifiers, it is possible to distinguish *ge* in the post-verbal position from Chinese verbal classifiers. First of all, verbal classifiers are semantically related to the verb, but unlike nominal classifiers, the position of [Num+ CLv] constituent is flexible. It can be placed between verbs and the post-verbal noun as in (2.34) and (2.36) and also can be found after the whole VP. That is to say, *liang bian* ‘twice’ in (2.34) may appear at the end of the sentence; and the same holds with *yi ci/ yi bian* ‘once’ in (2.36). However, as mentioned in section 2.2 above, *ge* and its following

elements are fixed in the post-verbal position and cannot appear in other position of the sentence. This indicates that a verbal classifier phrase forms a constituent in a sentence but post-verbal *ge* is a part of another constituent.

Second, [Num+ CLv] can be used with verbs alone and the object noun phrase can be omitted even if the verb is transitive, as in (2.37).

- (2.37) a. 他 读 了 一 遍, 告诉 我  
*ta du le yi bian, gaosu wo*  
 he read ASP one CLv, tell me  
 没有 问题。  
*meiyou wenti.*  
 no problem.  
 He read it and told me there was no problem.

- b. 他 笑 了 一 下, 告诉 我  
*ta xiao le yi xia, gaosu wo*  
 he smile ASP one CLv, tell me  
 没有 问题。  
*meiyou wenti.*  
 no problem.  
 He smiled and told me there was no problem.

In both instances, there are no object NPs following the verbs but the reasons for the lack of object NPs are different. In (2.37a), the object noun phrase of the transitive verb *du* ‘read’ is omitted but still can be recovered in the context. In (2.37b), the verb *xiao* ‘smile’ is intransitive and therefore does not take any object. Both types of verbs can co-occur with [Num+CLv] alone to denote events without post-verbal noun phrases overtly expressed.

The [V *ge* X] pattern has a variant, which is similar to (2.37b) as in (2.38).

- (2.38) 笑 一 个!  
*xiao yi ge*  
 smile one GE  
 Give a smile!

In (2.38), this expression denotes an instance of the smiling action and the intransitive verb *xiao* ‘smile’ does not take any object. This pattern is often brought up to argue that *ge* here is



a verbal classifier (Lü 1984) because it has the same surface form and similar meaning with verbal classifiers as instantiated in (2.37b).

Compared with the verbal classifier in (2.37b), the [V *yi ge*] pattern in (2.38) shows several special properties. The [V *yi ge*] pattern is mainly used in imperatives with the meaning of ordering or giving a suggestion and it does not allow the presence of other aspectual markers such as *le* in (2.37b). As to the meaning, Biq (2004) commented that *ge* in the [V *yi ge*] pattern has a function of trivializing the action designated by the preceding verb while this meaning is not detected in (2.37b). Furthermore, in (2.37), [Num+ CL<sub>v</sub>] also has a function of counting the occurrence of an event (here it is one), but in (2.38), the numeral *yi* ‘one’ does not have a similar numeral meaning. Instead, *yi* ‘one’ in (2.38) just emphasizes the occurrence of the action designated by the verb, not the number of occurrences. Therefore, *ge* in (2.38) is different from verbal classifiers in this sense.

Third, verbal classifiers are different from *ge* in terms of the combinatorial properties. The [V *ge* X] pattern does not accept a numeral other than *yi* ‘one’ and *yi* ‘one’ tends to be omitted in most instances. By contrast, verbal classifiers in most cases are free to co-occur with numerals indicating the frequency of event occurrences. So the verbal classifier 遍 (*bian*) with numeral *liang* ‘two’ in (2.34) is grammatical but post-verbal *ge* in (2.39) is not.

- (2.39) \*我们 去 散 两 个 步。  
           *women qu san liang ge bu.*  
           we go scatter two GE step.

Moreover, verbal classifiers can co-occur with the experiential aspect marker *guo* but post-verbal *ge* cannot. *Guo* as an aspect marker means ‘the event has been experienced with respect to some reference time’ (Li and Thompson 1981:226).

- (2.40) 我 去 过 一 次 北京。  
           *wo qu guo yi ci Beijing.*  
           I go ASP one CL<sub>v</sub> Beijing.  
           I have been to Beijing once.

Unlike *le*, which marks the event’s telicity, *guo* focuses on the fact that an event has taken place at least once. It indicates in a way that the event expressed by a sentence with *guo* occurred in an indefinite time in the past. The [V *ge* X] pattern can co-occur with aspect marker *le* as in (2.41a) but is not compatible with *guo* (2.41b).

- (2.41) a. 饭 吃 了 个 干净  
*fan chi le ge ganjing*  
 meal eat ASP GE clean

All food was finished.

- b. \*饭 吃 过 个 干净  
*fan chi guo ge ganjing*  
 meal eat ASP GE clean

Fourth, post-verbal *ge* can co-occur with verbal classifiers as in (2.42).

- (2.42) 书 要 读 个 三 遍 五 遍。  
*shu yao du ge san bian wu bian.*  
 book need read GE three CLv five CLv

‘(You) need to read the book several times.

*Sanbian wubian* ‘three times and five times’ is a coordination of [Num+CLv] and it indicates an approximate frequency of the book-reading event. *Ge* in (2.42) has a different function: it individualizes the event designated by the whole expression. To be more specific, *ge* in (2.42) indicates the whole reading-book-several-times as a discrete event.

To sum up, verbal classifiers are used to indicate the frequency of event occurrences and many verbal classifiers add semantic information to the event designated by the preceding verb. On the other hand, post-verbal *ge* indicates the event designated by the whole expression is a bounded and telic single instance and it does not imply any other additional information about the event. Syntactically, first, post-verbal *ge* cannot co-occur with numerals other than *yi* ‘one’ and *yi* ‘one’ tends to be omitted, but verbal classifiers do not have such a constraint. Second, verbal classifiers with numerals form a constituent but the specially used *ge* is a dependency morpheme in a larger unit. Third, unlike verbal classifiers, post-verbal *ge* is not compatible with experiential aspect marker *gou*. Forth, in the post-verbal position, *ge* and verbal classifier phrases can co-occur. *Ge* in [V *ge* X] is distinct from verbal classifiers not only in syntactic property but also their semantic functions. It is dubious to consider post-verbal *ge* as a (special) verbal classifier.

### 2.3.3 Ge as a nominalizer

Many researchers argued that the primary function of post-verbal *ge* is a nominalizer (Shi and Lei 2004, Wu 2004, Shang 2009, Ren 2013, et al.) but there is a lack of direct evidence for the nominal property of the elements following *ge*. This subsection analyzes the category of the elements following *ge* and argues that *ge* is not a nominalizer.

Traditionally, the distributional approach is often applied to identify the categories in a language. This is to see if a candidate unit can grammatically occur in certain syntactic structures. This approach is also known as grammatical tests (Croft 2015: 213). In section 2.2, Wu (2004) adopted this approach and argued that the elements following *ge* fail the tests for adjectives. This result is used as the indirect evidence to argue that *ge* is a nominalizer. However, similar tests can also be applied to show that the elements following *ge* are not nominal, either.

First of all, the originally non-nominal elements following *ge* cannot be topicalized as other nouns as in (2.44) compared with (2.43).

- (2.43) a. 我 吃 了 个 苹果。  
          *wo chi le ge pingguo*  
          I eat ASP GE<sub>cl</sub> apple  
          I ate an apple.
- b. 苹果 我 吃 了。  
          *pingguo wo chi le*  
          apple I eat ASP.  
          It was the apple that I have eaten
- (2.44) a. 饭 吃 了 个 干净。  
          *fan chi le ge ganjing*  
          meal eat ASP GE clean  
          All food was finished.

b. \*个 干净 饭 吃 了。  
*ge ganjing fan chi le.*  
 GE clean meal eat ASP.

c. \*干净 饭 吃 了 个。  
*ganjing fan chi le ge.*  
 clean meal eat ASP GE.

(2.45) a. 我 带 了 点 鹅肝 饼。  
*wo dai le dian egan bing.*  
 I bring ASP little goose.liver pancake.  
 来, 咱们 尝 个 新鲜。  
*Lai, zanmen chang ge xinxian.*  
 Come, we taste GE fresh.

I have brought some goose liver pancakes. Come, let's taste them.

b. \*来, 个 新鲜 咱们 尝。  
*Lai, ge xinxian zanmen chang*  
 Come, GE fresh we taste

c. \*来, 新鲜 咱们 尝 个。  
*Lai, xinxian zanmen chang ge.*  
 Come, fresh we taste GE.

In (2.44), the adjective *ganjing* 'clean' cannot either be topicalized alone or with *ge* preceding, which indicates that this adjective is not nominalized or at least does not have nominal properties. (2.44a) and (2.45a) are different in terms of the semantic relation between the elements following *ge* and the preceding verbs, as discussed in section 2.2. Even though *xinxian* 'fresh' can be semantically understood as the argument of the verb *chang* 'taste', it still fails the test in (2.45).

In addition, the elements following *ge* cannot be preposed by 被 *Bei* in passivization, either, as instantiated in (2.46) and (2.47).

(2.46) a. \*个 干净 被 饭 吃 了。  
*ge ganjing bei fan chi le.*  
 GE clean BEI meal eat ASP.

- b. \*干净 被 饭 吃 了 个。  
*ganjing bei fan chi le ge.*  
 clean BEI meal eat ASP GE.

- (2.47) a. \*个 新鲜 被 咱们 尝  
*ge xinxian bei zanmen chang*  
 GE fresh BEI we taste

- b. \*新鲜 被 咱们 尝 个。  
*xinxian bei zanmen chang ge.*  
 fresh BEI we taste GE.

Shi and Lei (2004) noted that nouns and other elements following post-verbal *ge* are non-referential and non-referential nouns normally cannot be topicalized or preposed in passivization. They suggested that instances like (2.44) -(2.47) are not grammatical because the nominalized elements are not referential. This contradicts with (2.48), in which the topicalized noun is the collocational object of the verb and according to Li and Thompson (1981), collocational objects in idiomatic VPs are typically non-referential.

- (2.48) 牙 我 刷 了。  
*ya wo shua le.*  
 tooth I brush ASP.

I have brushed my teeth.

As indicated by the distributional tests (4.44) and (4.45), the elements following *ge* are not nominal; (4.46) and (4.47) suggest that they are not objects in the post-verbal position either. This analysis causes other problems. As discussed above, *xinxian* ‘fresh’ is different from *ganjing* ‘clean’ in (2.44a). The former can be interpreted as the argument of the verb *chang* ‘taste’ by referring to things with the fresh property while the latter is the secondary predicate in the expression. The test results conflict with the semantic intuition. Based on the test results, there is no explanation to why the non-nominal elements have the same distribution with *pingguo* ‘apple’ in (2.43a). They are all in the post-verbal position and preceded by a word of the same form as the general classifier *ge*. In addition, if *xinxian* ‘fresh’ is not nominal or does not have an object role, it is hard to explain its argument reading in (2.45a).

Bearing the limitations of the distributional analysis in mind, Croft (2001) proposed an alternative view: when a syntactic structure is used to test a category membership, we can

discover something about the property of the slot in the structure instead of the category of the filler. Croft (2001:48) argued that categories and relations are internal to the structures and derived from the structures. In other words, categories are defined in syntactic structures by their constraints on the slots, not the other way round. In addition, the categories of elements in question are syntactic structure –specific and they can be of different categories in different structures.

From this alternative perspective, (2.44a) and (2.45a) are re-examined with (2.43a) as a reference. (2.43a) instantiates a basic Subject-Verb-Object structure, in which *ge* is a classifier followed by a noun in the object position. The verb *chi* ‘eat’ in (2.43a) is, therefore, a transitive verb with its two arguments position filled. As a result, in (2.43a), no additional arguments can be added as in (2.49). Suppose (2.44a) and (2.45a) are of the same structure as (2.43a). (2.44a) and (2.45a) cannot take another argument, either. In the Chinese language, additional event arguments can be added by the morpheme 把 *Ba* in the pre-verbal position, as in (2.50).

- (2.49) a. \*我 把 香蕉 吃 了 个 苹果。  
           *wo ba xiangjiao chi le ge pingguo.*  
           I BA banana eat ASP GE<sub>cl</sub> apple.
- b. \*我 把 他 吃 了 个 苹果。  
           *wo ba ta chi le ge pingguo.*  
           I BA him eat ASP GE<sub>cl</sub> apple.
- (2.50) a. \*来, 咱们 把 苹果 尝 个 新鲜。  
           *Lai, zanmen ba pingguo chang ge Xinxian.*  
           Come, we BA apple taste ge fresh.
- b. 他 把 饭 吃 了 个 干净。  
           *ta ba fan chi le ge ganjing.*  
           him BA meal eat ASP GE clean.

He finished all the food.

In (2.50a), like (2.49), it is not possible to add another argument while (2.50b) is still grammatical with a newly added argument. According to Croft (2001, 2015), (2.43a) and (2.45a) can be grouped together as the same structure because they demonstrate similar constraints, while (2.44a) cannot. In other words, (2.44a) instantiates a different structure from that of (2.45a) and (2.43a). Based on this conclusion, *xinxian* ‘fresh’ in (2.45a) has the

same role with *pingguo* ‘apple’ in (2.43a), i.e. they are both in the direct object position. As a result, *xinxian* ‘fresh’ following *ge* is nominal as *pingguo* ‘apple’ in (2.43a).

There are still several issues worth discussing. First of all, since *xinxian* ‘fresh’ in (2.45a) has been determined to be nominal, does it mean *ge* is the nominalizer? Based on the argument above, the categories of a filler is determined or derived from the syntactic structure. So the question becomes the object position in (4.45a) is filled by *ge*+ X<sup>8</sup> or X. If it is filled by *ge*+ X which can be seen as a structure, *ge* is a nominalizer. In addition, since in (2.43a), *pingguo* ‘apple’ is also preceded by *ge*, *ge* in (4.45a) may retain its classifier function. If the object position is filled by X alone, the function of *ge* becomes obscure. In order to answer this question, attested cases like (2.51) were found.

- (2.51) 若是 再 想 尝尝 新鲜 解解  
*ruoshi zai xiang changchang xinxian jiejie*  
 If again want have.a.taste fresh satisfy  
 馋, 那 品种 可就  
*chan, na pinzhong kejiu*  
 one’s.craving, then varieties just  
 海 了 去 了。  
*hai le qu le.*  
 sea ASP go ASP.

If you want to taste something new and satisfy your craving,  
 then there are so many kinds (of dishes) to eat.

In (2.51), *xinxian* ‘fresh’ is still in a post-verbal position, but not co-occurring with *ge*. With the same approach above, *xinxian* ‘fresh’ in (2.51) is also in the direct object position and therefore is nominal. This suggests that *xinxian* ‘fresh’ alone can be nominal to fill the object position.

Without any overt marking, *xinxian* ‘fresh’ is a typical adjective. According to Croft (2001:59), the propositional act of an element combined with semantic properties defines the

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<sup>8</sup> X here represents elements whose category is unknown or uncertain.

prototype of the element. *Xinxian* ‘fresh’ can be used as a property modifier, predicate and can be gradable as in (2.52).

- (2.52) a. 新鲜 水果 都 很 贵。  
*xinxian shuiguo dou hen gui.*  
 fresh fruit all very expensive.

Fresh fruits are all very expensive.

- b. 水果 很 新鲜。  
*shuiguo hen xinxian.*  
 fruit very fresh.

Fresh fruits are all very expensive.

- c. 这些 水果 最 新鲜。  
*zhexie shuiguo zui xinxian.*  
 these fruit most fresh.

These are the freshest fruits.

Based on the parameter of Croft (2001:87), it satisfies all the semantic characteristics of a prototypical word of Properties. Croft (2001: 87) proposed that due to the diversity of languages in the world, the universal parts of speech do not exist but there are universal semantic classes of Objects, Properties and Actions. They represent NOUNS, ADJECTIVES and VERBS respectively. So the word of Property is commonly labelled as adjective cross-linguistically. *Xinxian* ‘fresh’ in this sense is a prototypical adjective but converted to a de-adjectival noun in (2.45a) and (2.51). In (2.51) as there is no *ge* preceding *xinxian* ‘fresh’, it acquires the nominal property from the predicate-argument structure. Similarly, in (2.45a), it can be proposed that *xinxian* ‘fresh’ is not nominalized by the preceding *ge*, but the bigger structure. Since *ge* is not a nominalizer, its function remains unexplained. The Chapters 4, 5, 6 are devoted to solving this puzzle.

In addition, since *xinxian* ‘fresh’ in (2.45a) and (2.51) is nominalized from a word of Properties, it is semantically slightly different from prototypical words of Objects, i.e. NOUNS. *Pingguo* ‘apple’ in (2.43) is a prototypical noun referring to a type of concrete entity. The referent of *xinxian* ‘fresh’, however, is not clear. In the examples above, it is hard to identify the entity the nominalized *xinxian* ‘fresh’ refers to. As in (2.45a), according to the context in the original text, the speaker is about to taste some goose liver pancakes, but *xinxian* ‘fresh’ does not exactly refer to these pancakes that are still fresh. It also implies that



this tasting event is a new thing for the speaker. So *chang ge xinxian* ‘taste the fresh thing’ has an idiomatic meaning of ‘to try something new’. The nominalized adjective denotes a type of state. Moreover, instances in (2.4) have the same structure as those in (2.45a). I repeat below in (2.53) some of the examples from (2.4). The nominalized elements denote abstract properties or actions.

(2.53) a. 寻        个    自尽  
*xun        ge    zijin*  
 Look.for GE suicide  
 want to commit suicide

b. 知        个    高    下  
*zhi        ge    gao    xia*  
 know GE high low  
 learn which one is better

c. 落    个    人        财        两    空  
*Luo    ge    ren        cai        liang    kong*  
 fall GE people fortune two empty  
 End up with having nothing

*Zijin* ‘suicide’ in (2.53a) is a deverbal noun denoting an action; *gaoxia* ‘high and low’ in (2.53b) is a deadjectival noun phrase denoting the relevant properties; the expression in (2.53c) is nominalized as a whole referring to a situation as designated by the original clause. All these elements in the post-verbal position are nominalized so they are linked to the NOUNs in the so-called conceptual space or semantic space (Croft: 2001:92). The deverbal nouns are action referents and deadjectival nouns are property referents. They still designate actions and properties, respectively, but the original relational properties are bleached. Because of this, they denote more abstract nominal meaning than the prototypical nouns. Moreover, as analysed in Chapter 1, in the Chinese language, classifiers have the function of individualization, so nouns can collocate with classifiers denoting discrete entities. The nominalized elements due to the abstractness, however, are hardly construed as discrete entity and therefore are not compatible with the classifiers’ function. It does not mean that they cannot denote bounded meaning. Deverbal nouns can collocate with verbal classifiers and deadjectival nouns can co-occur with measure words. These facts imply that *ge* in (2.45a) is less likely a classifier.

To sum up, based on the arguments of Croft (2001, 2015), the elements following *ge* in the post-verbal position are identified as nominal, but *ge* is not the nominalizer. It is the predicate-argument structure that defines the nominal property of the fillers in the object position. Moreover, the nominalized elements are semantically more abstract than the prototypical nouns, so the preceding *ge* is not a classifier, either. However, there are still two issues not solved: first, the function of post-verbal *ge* is not identified; second, since (2.44a) has been proved not the same structure with (2.45a) despite similar syntactic form, the relation between these two structures is not clear. These two questions are answered in the later chapters.

## 2.4 Summary

This chapter first summarizes the influential arguments of Lü (1984) about the function of post-verbal *ge* and then present other researchers' opinions developed from Lü (1984)'s arguments. The current research provides valuable insights on the syntactic and semantic properties of post-verbal *ge*. They analyzed the functions and properties of post-verbal *ge* in six types of collocations as listed in table 2 and in general proposed 4 major explanations for the function of the specially used *ge*: *ge* as a classifier, an object marker, a special verbal classifier, non-object complement (secondary predicate) marker. They also have noticed that the expressions involving post-verbal *ge* have an additional telic and bounded reading. In addition, the structure also has a discourse function of denoting degree. Zhang (2003) proposed that various types of post-verbal *ge* form a continuum and he treats all functions of post-verbal *ge* as a whole functional set instead of isolated unit.

Despite the insights provided by the current research, there are still some problems and misconceptions. Three prominent problems are discussed in section 2.3. In this section, the distinctions between post-verbal *ge* and the non-object complement (secondary predicate) marker *de* are presented; the specially used *ge* is proved not a verbal classifier or nominalizer. But there are still several problems unsolved. The most important one is to identify the functions of post-verbal *ge* in different collocations. In addition, the links between each function need to be comprehensively analyzed too.

These are not missions impossible because some researchers are trying to solve the problems using a more efficient framework, the construction grammar framework. The concept of

constructions has already been used above when discussing nominalization in section 2.3.2. The syntactic structures with semantic constraints are recognized as constructions by Croft (2015:213). Constructions are form-function pairs and are the primitive elements in languages (Croft 2001, Goldberg 2006, Croft 2015). Within the construction grammar framework, Wu (2004) noticed that the expressions involving postverbal *ge* without numerals designate an event-related meaning compared to those involving other classifiers. Furthermore, by recognizing [V *ge* X] as a construction, Biq (2004) organized its variants in a linked network. As demonstrated above, it is not possible to have a correct observation of a syntactic structure without considering the semantic constraints. Thus, the construction grammar is chosen to solve the remaining problems regarding the specially used post-verbal *ge*. A corpus-based approach is applied to find more attested instances involving post-verbal *ge* for a better understanding of its properties. In the next chapter, based on the syntactic properties of post-verbal *ge* mentioned in previous literature, I introduce the method of data collection in this thesis.

## Chapter 3 Methodology and Data Collection

### 3.1 Introduction

In order to identify the function of post-verbal *ge* and how it develops this function, it is necessary to look into the naturally occurring data from historical corpora of Chinese. Chapter 2 gives a review of the previous studies on the functions of post-verbal *ge* in various collocations. More than five predicative patterns involving the special post-verbal *ge* have been discussed in previous research, including post-verbal *ge* followed by a non-referential noun, an NP as the collocational object of the preceding verb, a quantified NP, a non-nominal element and a negated VP. As Goldberg (1997:69) claimed, language speakers often produce attested expressions that are not ‘considered to be ‘core’ grammar’. So corpus data may reveal other perspectives of the special use of post-verbal *ge*. As pointed in Chapter 2, these previous studies did not pay much attention to the features of the preceding verbs or collocational preferences. So a corpus-based study can provide more linguistic data relating to post-verbal *ge* and fill this gap. Gisborne and Hollmann (2012: 1) stated that it is important to study linguistic data ‘in terms of what can actually be found’. The corpus-based study in this thesis may provide more details of semantic and syntactic properties of post-verbal *ge* in order to identify its function. Furthermore, another task of this thesis is to explore the historical development of *ge* in the post-verbal position. To complete the research tasks of this thesis, I used the Contemporary Chinese corpus of Institute of Applied Linguistics Ministry of Education (CNCorpus) and the corpus of Centre for Chinese Linguistics from Beijing University (CCL corpus) for data of the contemporary Chinese language and historical Chinese, respectively.

In this chapter, I first introduce the corpora I used in this research with comparison with other corpora and in section 3.3 the data collection method is explained according to the features of post-verbal *ge* discussed by the existing literature as well as the requirement of the research tasks. Section 3.4 is devoted to the explanation of the categorization of the collected data and the purpose of doing so. The last section 3.5 talks about the limitations of the data collected and how these drawbacks may affect the result of this research.

## 3.2 The Choice of Corpora

Unlike other languages, such as English, Chinese words are not separated by spaces, thus the counting units in corpora of Chinese are not words but characters. The CNCorpus is a large balanced corpus established by the Institute of Applied Linguistics Ministry of Education from 1997. It contains 19,455,328 characters and 9487 texts. 60% of the corpus data are from the texts about humanity and social science and 6% of the data are from textbooks on natural science for primary school and high school students. Texts from newspapers and journals take up 26% and the rest about 8% materials are from other types of texts, such as government documents, advertisements and letters. The years of the production of text materials in the CNCorpus ranges from 1919 to present and 50% of the language data are collected from materials after 1977 in order to cover the various use of the language in the contemporary Chinese. There are several reasons for choosing the CNCorpus for the synchronic study in this thesis. First of all, the CNCorpus is a balanced corpus with careful choice of materials trying to capture the full range of varieties of language use. Second, data in the CNCorpus are represented in a convenient format, which makes the data analysis much easier. Third, the data from the contemporary sub-corpus of the CNCorpus are manageable in terms of the size of selected data.

The CCL corpus is chosen for historical study in this thesis. The CCL corpus is one of the largest online publicly available corpora of the Chinese language and is developed by the Centre for Chinese Linguistics at Beijing University. It contains 201,668,719 characters of historical Chinese materials covering a wide range of data from the 21<sup>st</sup> Century BC to the early 20<sup>th</sup> Century AD, including classic prose texts, religious literature, historical biography, fictions and drama scripts, collections of lecture notes, poems and working and travelling notes. All the text materials in the CCL corpus are unparsed raw materials. The main reason for choosing the CCL corpus to collect historical language data for this study is that it has the largest historical Chinese database and contains various materials from every dynasty. It is essential for the observation of the development of post-verbal *ge* in different time periods.

Both the CNCorpus and the CCL corpus consist of two sub-corpora, contemporary and historical. The historical sub-corpus of the CNCorpus is not as large as the historical sub-corpus in the CCL. Furthermore, the historical sub-corpus of CNCorpus, unlike that in the CCL corpus, lacks textual materials from between the 5<sup>th</sup> and the 10<sup>th</sup> century. In order to

capture a full picture of the developing progress of post-verbal *ge*, the CCL corpus was chosen for the historical study. As to the contemporary sub-corpus of the CCL corpus, it is too big to be processed. It contains about 581,794,456 characters in the contemporary sub-corpus, which is about 30 times larger than the contemporary sub-corpus of the CNCorpus. Thus, for the sake of efficiency, the CNCorpus is selected primarily for the synchronic study in this thesis. As the CCL corpus is much larger, it is also used occasionally for some particular types of instances.

There are many other widely used corpora of the Chinese language. For contemporary Chinese data, there is the Lancaster Corpus of Mandarin Chinese (LCMC) and the Sinica Corpus developed by Taiwan Academia Sinica. Both corpora are balanced and have tagged word classes (unlike the CCL corpus). But the LCMC's data are collocated from materials in  $\pm 2$  years of 1991 and the corpus size is 500 texts (Xiao and McEnery 2004). Since the special use of *ge* in post-verbal position is normally used in spoken language or casual style texts (Lü 1984, Li 1987, Biq 2004), with the purpose of identifying the varieties and properties of post-verbal *ge*, the LCMC may not provide sufficient targeted textual materials. As for the Sinica Corpus, it contains 7,949,851 characters and 9228 texts collected in the 1990s, and almost 10% of the texts are classified as the spoken language or close to spoken language (including written-to-be-read and written-to-be-spoken types) (Huang and Chen 1998). However, Taiwan has been isolated from Mainland China for decades and the language used in Taiwan, especially spoken language is not exactly like the Mandarin Chinese (Xiao and McEnery 2004). For the historical Chinese language, there are very few corpora available online with free access. In addition to the CCL corpus and the CNCorpus, the Sheffield Corpus of Chinese (SCC) is a well-established corpus with word classes tagged. The SCC contains 41 texts of 420,000 characters, which are fully marked-up. The texts in the SCC are selected from different historical periods including the Song Dynasty (960-1279), Ming Dynasty (1366-1644) and Qing Dynasty (1644- 1911). According to Wang (1989), the most significant changes of Chinese classifiers occurred during the Sui (581-618), Tang (618- 907) and Wudai (907- 960) Dynasties and the language data from these time periods are too important to be overlooked. The data from SCC does not cover these crucial periods and therefore is not used in this research.

To summarize, compared with other possible corpora, the CNCorpus consists partly of a wide spectrum of texts of contemporary Chinese from the early 20<sup>th</sup> Century to the 21<sup>st</sup> Century, which provides vast diversity and research possibilities for the synchronic study of *ge* in the post-verbal position. The CCL corpus includes a relatively complete historical sub-corpus dating from the 4<sup>th</sup> century BC to the early 20<sup>th</sup> century AD, which is a suitable database for the diachronic study. In the following section, I introduce the data collection methods.

### 3.3 Data Collection

The thesis consists of synchronic study and diachronic study on post-verbal *ge*, and each part is designed to solve different problems. The synchronic study aims to identify the semantic and syntactic properties of post-verbal *ge* of special use and the diachronic study is to explore the historical development of *ge* in post-verbal position. Thus, the different tasks of the two parts of the study require different data collection methods.

#### 3.3.1 Data Collection for the Synchronic Study

In order to identify the form and function properties of post-verbal *ge* in contemporary Chinese, all the instances containing the special use of post-verbal *ge* need to be checked. Although the CNCorpus is a tagged corpus, all the tokens of *ge* are marked as ‘quantifier’, including the tokens in the post-verbal position that do not have classifier function. Thus, the instances relevant to the study have to be selected manually. In the contemporary sub-corpus of the CNCorpus, 6,689 tokens of *ge* were found. In order to reduce the workload, some additional filters were applied to eliminate unnecessary data.

1. All the instances in which *ge* is not in the post-verbal position were discounted.
2. All instances in which *ge* is a bound morpheme in a word were discounted. Possible words with *ge* as a bound morpheme are listed below.

高个 *gaoge* ‘tall height’, 矮个 *aige* ‘short height’, 大个 *dage* ‘tall height’, 小个 *xiaoge* ‘short height’, 自个 *zige* ‘oneself’, 独个 *duge* ‘oneself’, 今个 *jinge* ‘today’, 逐个 *zhuge* ‘one by one’, 挨个 *aige* ‘one by one’.

个性 *gexing* ‘personality’, 个体 *geti* ‘individual’, 个人 *geren* ‘personal’, 个案 *gean* ‘case’, 个别 *gebie* ‘exceptional’, 个例 *geli* ‘case’, 个子 *gezi* ‘height’, 个儿 *geer* ‘height’, 个位 *gewei* ‘unit digit’, 个头 *getou* ‘height’, 个样 *geyang* ‘case’, 个中 *gezhong* ‘therein’, 个把 *geba* ‘several’.

3. As pointed in the previous chapters, there is normally no numeral preceding *ge* in the post-verbal position, with the exception of *yi* ‘one’, and even this tends to be omitted. So, all instances in which *ge* is preceded by numerals were discounted. Similarly, all the instances in which *ge* is preceded by other quantifiers were discounted. Thus, instances in which *ge* appears in the combinations listed below were discounted.

Numerals (including characters and digits): 一/1 个 *yige* ‘one’, 二/两/2 *er/liang ge* ‘two’, 三/3 个 *sange* ‘three’, 四/4 个 *sige* ‘four’, 五/5 个 *wuge* ‘five’, 六/6 个 *liuge* ‘six’, 七/7 个 *qige* ‘seven’, 八/8 个 *bage* ‘eight’, 九/9 个 *jiuge* ‘nine’, 十个 *shige* ‘ten’, 百个 *baige* ‘hundred’, 千个 *qiang* ‘thousand’, 万个 *wange* ‘ten thousand’, 亿个 *yige* ‘hundred million’, etc.

Quantifiers: 数个 *shuge* ‘some’, 些个 *xiege* ‘some’, 半个 *bange* ‘half’, 整个 *zhengge* ‘whole’, 余个 *yuge* ‘more than’, 几个 *jige* ‘several’, 每个 *meige* ‘every’, 没个 *meige* ‘none’, 无个 *wuge* ‘none’, 各个 *gege* ‘each’, 多个 *duoge* ‘several/ more than’, (多)少个 (duo)shaoge ‘how much’, etc.

But there were a few exceptions found during the data collection. In some instances, *ge* is used in idiomatic VPs, but preceded by numerals and quantifiers, such as *yi* ‘one’, *er* ‘two’ and *ji* ‘several’. In order to avoid any inaccurate observations, a small-scale pilot study was added. I randomly selected 1000 instances from the discounted data involving numerals and quantifiers. Then I manually selected the instances in which *ge* is used in idiomatic VPs or other possible special collocations.

The remaining materials were further categorized into several groups based on their collocational features.

Group 1: All instances in which *ge* follows link verbs, such as the ones listed below:



是个 *shi ge* ‘be a/an’, 像/象个 *xiang ge* ‘seem/look like/ be like a/an’, 如个 *ru ge* ‘be like a/an’, 似个 *si ge* ‘look like/ be like a/an’, 若个 *ruo ge* ‘look like/ be like a/an’

Group 2: All instances in which *ge* follows verbs of existence, such as 有 *you* ‘there be’, 存在 *cunzai* ‘exist’.

Group 3: All instances in which post-verbal *ge* collocates with demonstratives, such as 这个 *zhege* ‘this’, 那个 *nage* ‘that’.

Group 4: All instances in which *ge* appears in idiomatic VP expressions, such as (3.1)

- (3.1) a. 先 来 信 打 个 招呼。  
*xian lai xi da ge zhaohu.*  
first come letter hit GE greet.  
(It’s) better to send a letter first to make a notice.

- b. 惊醒 后 翻 了 个 身。  
*jingxing hou fan le ge shen.*  
wake.up later turn ASP GE body.  
(He) turned around (on the bed) after being woken up  
unexpectedly

In this group, the element following *ge* is the collocational object of the preceding verb, and they together designate one action.

Group 5: All instances in which post-verbal *ge* is followed by a non-nominal element, such as (3.2)

- (3.2) a. 我 俩 决心 弄 个  
*wo lia juexin nong ge*  
I two determine make GE  
水落石出。  
*shuiluoshichu.*  
water.fall.stone.come  
Both of us decided to find it out.

- b. 当时 本 想 问 个 明白。  
*dangshi ben xiang wen ge mingbai.*  
 then originally want ask GE clear.  
 At that time, I was about to ask about it clearly.

Group 6: All instances that cannot be categorized into the above 5 groups, such as (3.3).

- (3.3) a. 女人 有 权利 再 找 个 配偶。  
*nvren you quanli zai zhao ge peiou.*  
 woman have right again find GE partner.  
 Women have the right to find a partner again

- b. 不如 留 个 干净 白 脸。  
*buru liu ge ganjing bai lian.*  
 rather leave GE clean white face.  
 It is better to keep the face clean.

All instances in Group 6 involve post-verbal *ge*, which is followed by nouns but does not denote obvious individualizing or singularizing meaning. So they needed to be further analyzed for classification.

### 3.3.2 Data Collection for the Diachronic Study

The main purpose of the diachronic study is to explore the development of *ge* in the post-verbal position and how it acquired the special function in the particular collocations. In order to capture the features of post-verbal *ge* in different time periods, the data for the diachronic study were organized chronologically.

The CCL corpus groups the textual materials by dynasties and I searched the token *ge* in each subset. In each subset of the Zhou Dynasty (11<sup>th</sup> to 3<sup>rd</sup> century B.C.), Han Dynasty (3<sup>rd</sup> century B.C. to 3<sup>rd</sup> century A.D.), the Six Dynasties (3<sup>rd</sup> to 6<sup>th</sup> century) (including Jin, North and South Dynasties) and Sui Dynasty (6<sup>th</sup> to 7<sup>th</sup> century), the token *ge* does not appear very frequently. In the textual materials of Han Dynasty which cover about 600 years, only 10 instances involving the token *ge* were found. In the subsets of the Tang Dynasty (7<sup>th</sup> to early 10<sup>th</sup> century) and Five Dynasties (10<sup>th</sup> century), slightly more instances of token *ge* were found. Since the thesis is a qualitative study and the corpus size of each subset in the CCL corpus is unspecified, I cannot provide the accurate token frequency of *ge* in each dynasty. But it is obvious that since the Ming Dynasty (14<sup>th</sup> to 17<sup>th</sup> century), the instances involving

token *ge* were found in large amounts (as shown in the table below). Since there were too many tokens of *ge* found in the subsets of Ming Dynasty and Qing Dynasty (17<sup>th</sup> century to 20<sup>th</sup> century), I randomly selected 10% of the instances involving *ge* in each subset for the study. The numbers of the token *ge* found in each dynasty are listed in the following table.

*Table 3 Distribution of token ge in each dynasty*

Dynasty	Number of token <i>ge</i>	Dynasty	Number of token <i>ge</i>
Zhou Dynasty (11 <sup>th</sup> to 3 <sup>rd</sup> century B.C.)	65	Song (10 <sup>th</sup> to 13 <sup>th</sup> century)	5,185
Han Dynasty (3 <sup>rd</sup> century B.C. to 3 <sup>rd</sup> century A.D.)	10	Yuan (13 <sup>th</sup> to 14 <sup>th</sup> century)	1,440
Six Dynasties (3 <sup>rd</sup> to 6 <sup>th</sup> century)	13	Ming (14 <sup>th</sup> to 17 <sup>th</sup> century)	17,296
Sui Dynasty (6 <sup>th</sup> to 7 <sup>th</sup> century)	14	Qing (17 <sup>th</sup> to early 20 <sup>th</sup> century)	39,979
Tang Dynasty (7 <sup>th</sup> to early 10 <sup>th</sup> century)	191		
Five Dynasties (10 <sup>th</sup> century)	559		

Based on the data amounts and the task of the thesis, all the data collected from different dynasties were divided into two large groups. Group A (the left column in Table 3) contains the data of the 10<sup>th</sup> century and before and Group B (the right column in Table 3) includes the data of after the 10<sup>th</sup> century. For Group A, since the data amounts were relatively smaller and

it was possible to sort all instances manually. As to the Group B, the instances involving the token *ge* were too many to be manually processed. Thus, for Group B, only instances of *ge* in the post-verbal position were kept. The study of the data in Group A focused on the early use of the word *ge* and how it developed into a classifier. By studying the data of Group B, with the focus on post-verbal *ge*, I aim to discover how the classifier function of *ge* in the post-verbal position evolved and how and when post-verbal *ge* started to acquire the new functions, which are different from classifiers.

### 3.4 Limitations of Data

The thesis is based on written materials to study post-verbal *ge* but they are not direct evidence to reflect the usage of the language. They can only provide ‘hints’ about how languages are used in the real world (Traugott and Trousdale 2013). First of all, the editors or writers may have edited the syntactic structures represented in written materials. *Ge* in the post-verbal position as mentioned in the previous chapters does not tend to take numerals other than *yi* ‘one’ and *yi* ‘one’ is often omitted. However, Lü (1984) has noticed that while writing, people tend to keep or recover the numeral *yi* ‘one’ before *ge* in the post-verbal position. As noted in section 3.3, in the CNCorpus, there were indeed some instances in which post-verbal *ge* was preceded by numerals in idiomatic VP expressions. Second, in Chapter 2, some researchers noticed that post-verbal *ge* of the special use typically appears in spoken Chinese and informal register. But data reflecting spoken language are often obtained indirectly. There are several types of texts, which are considered as the spoken language or at least close to the spoken language in the CNCorpus, such as transcripts of TV programs and films, transcripts of comedy shows and dramas, which are written to be read. Conversations in novels and fictions are also close to the spoken language. However, in the process of converting the languages heard and ‘spoken’ languages in mind in written form, it is inevitable that writers will modify the language according to the rules of the written language. Third, for the data of historical Chinese, they are mainly texts of edited versions and may not reflect the exact language use in the original manuscripts.

Unlike the CNCorpus, the CCL corpus is not a balanced corpus and it cannot reflect the actual diversity of language use in genre or register. The relative proportions of different types of the historical textual materials are not the same in different subsets of dynasties. For example, there were very limited materials before the 10<sup>th</sup> century of historical Chinese in the informal

register; but after the 13<sup>th</sup> century, with the popularity of dramas and fictions, many written materials became closer to daily spoken language style. This can also be a reason for the asymmetry distribution of *ge* before and after the 13<sup>th</sup> century in the historical sub-corpus in the CCL.

To sum up, the limitations of data discussed above possibly result in missing of some types of collocations the post-verbal *ge* occurs with. But the most commonly used types of post-verbal *ge* were captured in the corpora, which are sufficient to embody the typical properties of the specially used *ge*. As to the diachronic study, the data limitations may affect the frequency of the special use of post-verbal *ge* in various time periods. As the main tasks of the study are to identify the properties of post-verbal *ge* of special use and how it developed the special function, the limitations of data do not have a significant impact on the qualitative description.

In the next two chapters, I present the findings from the data collected in the CNCorpus and the CCL corpus, respectively. Chapter 4 analyzes the synchronic properties of *ge* in the post-verbal position altogether with the features of its collocations and the contexts it occurs. The historical development of post-verbal *ge* is discussed in Chapter 5.

# Chapter 4 Variants of [V *ge* X] Pattern in Contemporary Chinese

## 4.1 Introduction

As discussed in the previous chapters, post-verbal *ge* is found collocated with various types of elements, including non-referential nouns, NPs as the collocational objects of preceding verbs, quantified NPs, non-nominal elements and negated VPs. For the sake of convenience, the specially used *ge* and its preceding verb altogether with its following elements are referred to as the [V *ge* X] pattern. As introduced in Chapter 3, the instances collected from the CNCorpus involving *ge* in the post-verbal position are divided into 6 groups. This chapter is devoted to the analysis of the instances of each group with the aim of identifying the properties of the special *ge* in the post-verbal position and distinguishing it from the classifier *ge*. 6,689 tokens of *ge* are found and I am able to generalize various sub-types of [V *ge* X] pattern in contemporary Chinese according to the properties of elements filling the X slot and elements filling the V slot. These sub-types also demonstrate many common features in both form and meaning and these features are closely related to the presence of *ge*. This chapter is devoted to reporting the findings of the features of various sub-types of [V *ge* X] pattern and their common properties. The previous studies on post-verbal *ge* introduced in Chapter 2 mainly focused on the salient instances in which *ge* is used in idiomatic VPs and followed by non-nominal elements, which are labelled as Group 4 and Group 5 in Chapter 3, respectively. This chapter first analyzes these two types of instances involving post-verbal *ge* found in the CNCorpus. Then, based on the observed features of the special *ge* in the post-verbal position, the functions of post-verbal *ge* in the other groups, i.e. Group 1 in which *ge* follows link verbs, Group 2 in which *ge* follows verbs of existence, Group 3 in which *ge* collocates with demonstratives and Group 6 in which *ge* cannot be immediately categorized, are identified. This chapter is structured as follows: the next section reports the various types of [V *ge* X] pattern found in Group 4 and Group 5, based on their syntactic properties. Section 4.3 demonstrates the semantic features shared by these types of [V *ge* X]. The fourth section is designed to distinguish post-verbal *ge* of the special function from the classifier *ge* in other

groups based on the findings in the previous sections. The last section is the conclusion of this chapter.

## 4.2 Types of [V *ge* X] Pattern

Based on the properties of the elements following *ge* in the post-verbal position, instances of the [V *ge* X] pattern were categorized roughly into two major sub-types: one includes instances in which X is recognized as nominal, including NPs as the collocational objects of the preceding verb, quantified NPs and nominalized elements (here represented as [V *ge* N]); the other includes those in which X is non-nominal element, including adjectives, VPs, clauses and negated VPs (here represented as [V *ge* non-N] for now).

### 4.2.1 Variants of [V *ge* N]

As shown in the examples in previous chapters, the N slots can be filled by collocational objects of the preceding verbs, which are parts of idiomatic VPs. Based on the data collected from the CNCorpus, there are two sub-types of this pattern. One is when V and N are morphemes of a ‘splittable V-O compound’, as in (4.1).

- (4.1) a. 金明 把 陆宏 翻 了 个 身。<sup>9</sup>

*Jinming ba Luhong fan le ge shen.*

Jinming BA Luhong turn ASP GE body.

Jinming turned Luhong over.

- b. 你们 做 准备, 我 刮 个 胡子。

*nimen zuo zhunbei, wo gua ge huzi.*

You.PL do prepare, I shave GE beard.

You do some preparation, and I will have a shave.

In (4.1), *fanshen* ‘turn over’ and *guahuzi* ‘shave’ are verbal phrases that are conventionally used idiomatically in Chinese. The meanings of these types of VPs are not the simple combination of the meanings of the verb and its object, but rather the whole unit denotes a non-analyzable fixed meaning. For example as in the case of *fanshen* ‘turn over’ in (4.1a), the literal meaning of the simple combination of these two morphemes is to ‘turn over one’s body’, but it is not the accurate meaning of the expression. *Fanshen* designates an action that someone turns over his/her body in a lying position and this additional information about the

<sup>9</sup> All instances are from the CNCorpus, unless otherwise specified.

initial ‘lying position’ is not conveyed by either of the individual morphemes. Similarly, in (4.1b), *huzi* ‘beard’ following *ge* does not refer to discrete hair on the face. *Guahuzi* together means ‘to have a shave’, instead of ‘to cut off one hair on the face’. The verb and its collocational object are normally used together to designate an action and the noun in the object position does not need to co-occur with classifiers. According to the basic function of classifiers introduced in Chapter 1, the noun in the collocational object position does not collocate with classifiers to denote individualized entities. Furthermore, if classifiers are added in this type of VP, the meaning of the expression changes and is not acceptable for most native speakers, as illustrated in (4.2).

- (4.2) a. ??翻 了 副 身  
*fan le fu shen.*  
 turn ASP CL body.

Turned one body.

- b. 刮 根 胡子  
*gua gen huzi*  
 shave CL beard

Remove one hair on the face.

In (4.2), when a classifier is used before the noun, the noun becomes countable and the meaning of the whole expression has changed.

Although this type of VPs does not need classifiers presenting, it can be separated by inserting words, as illustrated in (4.1). Furthermore, this type of VPs is highly idiomatic and some researchers believe they have lexicalized. Li and Thompson (1981) called this type of VP ‘Verb-Object’ compound and Wang (2011) named them as ‘separable word’. In this research, in order to better illustrate the features of this type of VPs, by modifying Siewierska, Xu et al. (2010)’s term ‘splittable compound’, these units are labelled as ‘splittable V-O compounds’. It seems to be abnormal to apply the syntactic analysis to a morphological structure but this is justified by the special properties of Chinese language. Shen (2006) believed that because each Chinese character is meaningful and relatively independent, they can be either a constituent of a word or a word itself. Wang (2011) further pointed that in modern Chinese, most words are double or multiple syllable structures as the lexicalizational outcome of compounding single syllable-words. This word formation process makes the boundary between words and phrases in Chinese not clear-cut. As a result, it is possible for



some words to be separated and analyzed like syntactic structures. Based on the corpus study by Siewierska, Xu et al. (2010) and Wang (2011), these splittable V-O compounds only have limited separability and the major types of elements allowed to be inserted are aspect markers, such as *le*, *guo*, *zhe*, verbal classifiers, possessive form of noun and pronoun, adjectives, etc. *Ge* in (4.1) that separates *fanshen* ‘turn over’ and *guahuzi* ‘shave’ seems not to fit in any of these categories.

Moreover, since in splittable V-O compounds, the second morpheme is regarded as the collocational object of its preceding verb, it can be further modified by adjectives, as in (4.3).

- (4.3) a. 睡 了 一 个 特别 香甜的  
*shui le yi ge tebie xiangtiande*  
 sleep ASP one GE special sound  
 午觉  
*wujiao.*  
 noontime.snooze.  
 (He) had a very sound noontime snooze.
- b. 他 鞠 了 个 短, 硬, 而 十分  
*ta ju le ge duan, ying, er shifen*  
 he bend ASP GE short, hard, but very  
 恭敬的 躬。(from the CCL)  
*gongjingde gong.*  
 respectful bow.  
 He made a brief, stiff but very respectful bow.

In (4.3), *shuijiao* ‘sleep’ and *jugong* ‘bow’ are not only split by *ge* but also further expanded by modifiers. Since the second morpheme is considered as the collocational object of the preceding verb, it is modified by adjectives like normal nouns. Moreover, by observing the data from the CCL corpus, Wang (2011) noticed that instances like (4.3b) in which the second morpheme in the splittable V-O compounds is modified by complex adjectival structure tend to choose *ge* as its split ‘operator’ rather than verbal classifiers. In addition, in (4.3a), *ge* is preceded by a numeral *yi* ‘one’, and other instances were found, in which other numerals co-occur with post-verbal *ge* in idiomatic VPs, as in (4.4).

- (4.4) a. 我 禁不住地 一连 打 了  
*wo jinbuzhudi yilian da le*  
 I cannot.help in.succession hit ASP  
 两 个 哈欠。  
*liang ge haqian.*  
 two GE yawn.

I couldn't help yawning twice in succession.

- b. 小车 一连 向前 翻 了  
*xiaochē yilian xiangqian fan le*  
 little.car in.succession forwards turn ASP  
 好几个 个 跟斗。  
*haoji ge gendou.*  
 several GE somersault.

The toy car turned several somersaults forwards in a row.

As introduced in Chapter 2, many linguists agree that post-verbal *ge* can be preceded by numeral *yi* 'one' although it also tends to be omitted. But few of them commented on the instances like those in (4.4), in which *ge* used in an idiomatic VP or a splittable V-O compound is preceded by numerals or quantifiers indicating numbers more than one. These instances are analyzed in section 4.3.

In addition to splittable V-O compounds, there is another type of [V *ge* N] pattern in which the verb and the noun also show collocational preference and have idiomatic non-compositional meaning. The nouns in the collocational object position do not need to co-occur with classifiers, either, but the expressions are recognized as phrases not lexicalized as the instances above. (4.5) lists some instances of this type of [V *ge* N] pattern.

- (4.5) a. (他) 便 想 说 句 话  
*(ta) bian xiang shuo ju hua*  
 (he) then want say CL utterance  
 下 个 台阶。  
*xia ge taijie.*  
 come.down GE stair.

(He) wanted to say something to help himself out of the embarrassment.

- b. 找 他 商量 不过 是 走 个  
*zhao ta shangliang buguo shi zou ge*  
 find him discuss just COP walk GE  
 过场。  
*guochang.*  
 through.platform.

It is just to go through the motions of discussing with him

The literal meaning of *xia taijie* in (4.5a) is ‘to step down stairs’ but its idiomatic meaning is ‘to escape from embarrassment’. *Zou guochang* in (4.5b) means ‘to do something insincerely because of some requirements’ but its literal meaning is ‘to walk around the platform’. *Ge* is not a classifier indicating an individualized entity in either instance in (4.5) because a classifier interpretation causes the loss of the idiomatic meaning in both expressions.

There are also instances of [V *ge* N] in which V and N do not show obvious collocational preference but N is filled by a non-referential noun as in (4.6).

- (4.6) a. 留着 买 个 米 打 个 油。  
*liuzhe mai ge mi da ge you.*  
 save buy GE rice hit GE oil.

Save (the money) for buying some rice or oil.  
 (in case of rice-buying or oil- buying)

- b. 我 要 到 邻国的 餐厅  
*wo yao dao linguode canting*  
 I want go neighbour.country restaurant  
 借 个 厕所, 三 分钟 回来。<sup>10</sup>  
*jie ge cesuo, san fenzhong huilai.*  
 borrow GE toilet, three minutes back.

I will go to use the toilet in the restaurant of the  
 neighbouring country and I will be back in three minutes.

As discussed in Chapter 2, most researchers categorized *ge* in this type of [V *ge* N] as a classifier, but in (4.6) the classifier interpretation of *ge* does not indicate the correct meaning of these two expressions. In (4.6a), *you* ‘oil’ is a mass noun denoting a kind of substance that does not exist in discrete form. As introduced in Chapter 1, this kind of nouns tends to collocate with measure words, which create a unit. Thus, the classifier interpretation of *ge*

<sup>10</sup> In the context, the speaker was in Vatican and would like to go to toilet which was in Rome.

preceding *you* ‘oil’ is not commonly accepted. Although *mi* ‘rice’ can refer to discrete grains, the bare *ge* preceding it can only denote singular meaning, which is not the natural interpretation in this expression. Similarly, in (4.6b), although *cesuo* ‘toilet’ can denote a discrete entity and therefore can be associated with classifiers, the preceding *ge* in this instance is still not a classifier. In (4.6b), *jie cesuo* ‘to borrow toilet’ does not mean to borrow a room which is a toilet, but ‘to use other people’ toilet’. Thus, *ge* in this instance is more event-related than entity-related.

Moreover, the N slot in [V *ge* N] can also be filled with other nominal structures, as listed below.

- (4.7) a. 干 得 好 赚 笔 钱 回来, 买  
*gan de hao zhuan bi qian huilai, mai*  
 do DE well earn CL money back, buy  
 个 彩电, 冰箱 的, 让  
*ge caidian, bingxiang de, rang*  
 GE TV, fridge NOM, make  
 奶奶 妈妈 享享 福。  
*nainai mama xiangxiang fu.*  
 grandma mum enjoy happiness.  
 If I do well and make some money, I can buy TV and fridge  
 or other appliance and make grandma and mum live better.
- b. 有的 甚至 赌 个 通宵。  
*youde shenzhi du ge tongxiao.*  
 some even gamble GE all.night.  
 Some people even gamble all night.
- c. 把 我们的 事 给 她们 讲 个  
*ba womende shi gei tamen jiang ge*  
 BA our thing to them tell GE  
 三百六十 遍, 可 人家 连 枫桦西  
*sanbailiushi bian, ke renjia lian fenghuaxi*  
 360 CLv, but they even Fenghuaxi  
 路 都 不 讲 给 你。  
*lu dou bu jiang gei ni.*  
 Road all not tell to you.  
 We have told them our story 360 times, but they don’t want  
 to tell you anything about Fenghuaxi Road

- d. 各 省 都 说 要 增加 个  
*ge sheng dou shuo yao zengjia ge*  
 each province all say want increase GE  
 百分之 几 或 百分之 十几。  
*baifenzhi ji huo baifenzhi shiji.*  
 percent some or percent dozen

Every province said they would increase by some percent or dozens of percent.

- e. 他 天天 念, 每天 据 他说,  
*ta tiantian nian, meitian ju ta shuo*  
 he everyday read, everyday according he say,  
 必定 要 念 个 三 四 页。  
*biding yao nian ge san si ye.*  
 must need read GE three four page.

He reads everyday. According to him, he required himself to read several pages everyday.

(4.7) shows five possible nominal structures found to fill the N slot in the [V *ge* N] pattern. In (4.7a) *ge* is followed by a coordinated NP denoting two types of entities, i.e. TV and fridge. In (4.7b), *ge* is followed by an NP denoting an approximate temporal duration. In (4.7c), *ge* is followed by an NP or to be more accurate, a verbal classifier phrase that denotes the frequency of the occurrence of the story-telling action. The N slot in (4.7d) is filled with numerals indicating increasing percentage and in (4.7e) *ge* is followed by a quantified NP. *Ge* in all these instances is not a classifier because its combination with the following nominal structures does not denote discrete and singularized meaning. Thus, although in these instances *ge* is not used in idiomatic VPs, they are still grouped in Group 1, in which *ge* is not a classifier in the post-verbal position followed by nominal elements.

There is another type of [V *ge* N] pattern as in (4.8), in which the elements following *ge* has been analysed as nominal in Chapter 2.

- (4.8) 谁 不想 瞧 个 稀罕。  
*shui buxiang qiao ge xihan.*  
 who not.want see GE rare.

Everyone wants to see something new.

The word *xihan* ‘rare’ following *ge* are prototypical adjectives in (4.8) but in this predicate-argument structure, it is nominalized by the object slot. *Xihan* ‘rare’ denotes a property meaning and refers to the unstated object by picking out its salient property.

To sum up, the special used *ge* in the post-verbal position is found co-occurring with various types of nominal elements, including NPs as collocational objects in splittable V-O compounds and idiomatic VPs, non-referential NPs, complex nominal structures (such as coordinated NPs, NPs denoting approximate temporal duration and frequency, and other quantified NPs) and nominalized NPs. The syntactic properties of these types are further discussed in section 4.3. Furthermore, the instances found in the CNCorpus also imply that the specially used *ge* in post-verbal position can co-occur with numerals other than *yi* ‘one’ and these cases are analyzed in section 4.3 as well.

#### 4.2.2 Variants of [V *ge* non-N]

The most salient feature of the specially used *ge* in the post-verbal position is that it can collocate with non-nominal elements. As introduced in Chapter 3, all these types of instances in which post-verbal *ge* co-occurs with non-nominal elements found in the CNCorpus were grouped in Group 5. This sub-section presents the various types of [V *ge* non-N] classified from Group 5.

Post-verbal *ge* was found followed by adjectives as in (4.9).

- (4.9) a. 工人们 都 跑 个 精光。  
*gongrenmen dou pao ge jingguang.*  
 worker.PL all run GE completely.bare.  
 All workers ran away.
- b. 我 打算 亲自 去 一 次, 把  
*wo dasuan qinzi qu yi ci, ba*  
 I plan in.person go one CLv, BA  
 情况 问 个 清楚。  
*qingkuang wen ge qingchu.*  
 situation ask GE clear.  
 I plan to go there myself, and find out what is the situation.

In (4.9), *ge* in the post-verbal position is followed by adjectives and these adjectives describe the resultant state of the events designated by the preceding verbs. As discussed in the previous chapters, the adjectives following post-verbal *ge* typically designate the property that is at the polarity on the degree scale. In (4.9a), *jingguang* ‘complete’ is a non-gradable adjective, which itself designates the ultimate degree of completeness. *Qingchu* ‘clear’ in (4.9b) is a gradable adjective but in this instance, it indicates the ultimate goal of doing the action designated by the preceding verb. Thus, the adjectives following *ge* in the post-verbal position are not necessarily originally non-gradable.

In addition, there are instances found in which post-verbal *ge* is followed by adjectival phrases as in (4.10).

- (4.10) 列车 好像 要 和 天上的  
*lieche haoxiang yao he tianshangde*  
 train seem want with sky.above  
 银燕 比 个 高低。  
*yinyan bi ge gaodi.*  
 swallow compete GE high.low.

It seemed that the train would race with the swallow (to see which is faster).

In (4.10), *ge* is followed by a short adjectival phrase, *gao di* ‘high and low’ which consists of two adjectives of opposite meanings implying the possible outcomes of the racing event.

Moreover, there are also many instances in which post-verbal *ge* is followed by Chinese four-character-idioms as in (4.11).

- (4.11) a. 我 俩 决心 弄 个 水落石出。  
*wo lia juexin nong ge shuiluoshichu.*  
 we two determine make GE water.fall.stone.come

Both of us determined to straighten up the whole matter.  
 (to the extent that ‘the water recedes and all the stones are exposed)

- b. 各 种 机 器 人 把 这 儿 围  
*ge zhong jiqiren ba zher wei*  
 each type robot BA here surround  
 了 个 水 泄 不 通。  
*le ge shuixiebutong.*  
 ASP GE water.leaking.no.through.

All kinds of robots overwhelmed the place  
 (even water cannot go through).

The Chinese four-character-idiom (*Chengyu*) is a very important category in the Chinese vocabulary. According to Li et.al (2016), 95% of Chinese idioms consist of four characters (Liu & Cheung 2014). One important feature of Chinese-four-character-idioms is that they have fixed internal syntactic structures. Li et.al (2016) claimed that 90% of Chinese-four-character-idioms are structured by two units with syntactic relation and each unit contains two characters. These two units demonstrate different syntactic relations in different cases. For instance, in (4.11a), the first two characters *shuiluo* ‘water falls’, which is a S(ubject)-V(erb) unit, join with the second pair *shichu* ‘stone come’, which is also a SV unit, forming a coordinated structure as *[[shuiluo][shichu]]* (*[[SV][SV]]*). In (4.11b), the first two-character unit *shuixie* ‘water leaking’ is a noun-modifier structure and it with the second two-character unit forms an SV syntactic structure as *[[shuixie][butong]]* (*[[S][V]]*). So the internal structures of these idioms are quite complex.

Another feature of Chinese-four-character-idioms is that their meanings are often non-compositional. For example, the idiom in (4.11a) is derived from a poem, and the original meaning is if water falls, stones in the water will be exposed. Its extended meaning as an idiom is that the truth will be discovered at the end. As to the (4.11b), the literal meaning of the expression is that flowing water cannot go through, but as a Chinese-four-character-idiom, it means very crowded. Chinese-four-character-idioms cannot be simply labelled as either adjectives or VPs, because they can be either predicate or modification and they can denote either state (4.11a) or process (4.11b), without additional marking.

Elements following *ge* in the post-verbal position can also be a verb, such as in (4.12).



- (4.12) a. 蒙面            人            把    他    推            个  
*mengmian        ren            ba    ta    tui            ge*  
 covering.face    person    BA    he    push        GE  
 趔趄，            夺路而逃。  
*lieqie,            duoluertao.*  
 stagger,            grab.road.and.escape.

The man in mask pushed him violently, and fled.

- b. 他    一不小心    摔        了        个    蹒跚。  
*ta    yibuxiaoxin    shuai    le        ge    panshan.*  
 he    one.no.care    fall        ASP    GE    limp.

He accidentally fell and couldn't walk properly.

*Lieqie* in (4.12a) denotes an occurrence of staggering caused by being pushed violently; *panshan* 'limp' in (4.12b) also designates a successive action following the occurrence of falling.

The non-nominal element following post-verbal *ge* can be even a more complex structure like clauses as in (4.13).

- (4.13) a. 一家人        把    一        大        盘        炒  
*yijiaren        ba    yi        da        pan        chao*  
 one.family    BA    one        big        dish        stir.fry  
 香菇            吃    了        个        盘        底儿        朝天  
*xianggu        chi    le        ge        pan        dir        chaotian*  
 mushroom    eat    ASP    GE        dish        bottom    face.sky

The family finished the whole dish of stir-fried mushroom.

- b. 前因        后果        不    闹        个    小葱  
*qianyin        houguo    bu    nao        ge    xiaocong*  
 cause        result        not    make        GE    spring.onion  
 拌    豆腐，是        绝                    不肯    罢休    的。  
*ban    doufu,    shi        jue                    buken    baxiu    de.*  
 mix    tofu,    COP    absolutely    not        stop        NOM

I will not stop until I find out how this happened exactly.

The elements following *ge* in (4.13) have a complete Subject- Predicate structure and can be used alone. So they are considered as clauses in this thesis. The clause following *ge* in (4.13a) means the bottom of the dish is completely uncovered and implies the whole dish was consumed by the family. The clause following *ge* in (4.13b) literally means 'to mix spring

onions and tofu together’, and its idiomatic meaning here is ‘clearly’ (because of the colour contrast of the spring onions and tofu). These expressions in the form of clauses following *ge* are typically used in an idiomatic way but they do not belong to the category of Chinese-four-character-idioms. In order to mark their special idiomatic use, they are referred to as the small clause to contrast with other types of clauses.

There is another type of [V *ge* non-N] pattern in the form of [V<sub>1</sub> *ge* Neg V<sub>2</sub>]. In this type, V<sub>1</sub> is a verb of action and V<sub>2</sub> is typically filled by verbs with the meaning ‘to stop or finish’, like *ting* ‘stop’, *xiu* ‘rest’ and *wan* ‘finish/end’. For example:

- (4.14) a. 那 泪水 流 个 不 停, 他  
*na leishui liu ge bu ting, ta*  
 that tears flow GE not stop he  
 不 怕 她 笑话。  
*bu pa ta xiaohua*  
 not scare she laugh.

The tears kept running down his face and he didn’t mind her seeing this.

- b. 照相机 噼里啪啦 响 个 不 停,  
*zhaoxiangji pilipala xiang ge bu ting,*  
 camera cracking sound GE not stop,  
 她 简直 不 知道 怎么 办 了。  
*ta jianzhi bu zhidao zenme ban le.*  
 she just not know how deal ASP

People kept taking photos of her and she didn’t know what to do.

To sum up, post-verbal *ge* can co-occur with non-nominal elements, such as adjectives, adjective phrases, Chinese four-character-idioms, small clauses and negated VPs. None of them is the typical collocation of a classifier. Thus, *ge* in these instances is not classifier anymore. In the following section, the semantic properties of these [V *ge* X] variants are discussed and the function of *ge* in the [V *ge* X] is identified.

### 4.3 Semantic Properties of [V ge X]

Various types of [V ge X] pattern share several semantic properties, in terms of referentiality, telicity/ boundedness and eventivity. This section analyzes these properties of the [V ge X] pattern in detail.

#### 4.3.1 Referentiality

When *ge* is a classifier, its basic and most important function is to individualize and singularize entities from a type of a nominal concept.

- (4.15) 室内 摆 着 个 时钟, 约  
*shinei bai zhe ge shizhong, yue*  
indoor put ASP GE clock, about  
两 公尺 高。  
*liang gongchi gao.*  
two metre tall.

There is a clock in the room. The clock is about two metres high.

In (4.15), *ge* is a classifier and the following noun refers to an entity. This entity is further described in the following context. In other words, in this instance, *shizhong* ‘clock’ is a referential noun. On the other hand, in (4.1b) (here repeated as (4.16)), the noun *huzi* ‘beard’ following *ge* in the splittable V-O compound *guahuzi* ‘shave’ is nonreferential since it does not refer to any discrete entity or instance of a type. To be more specific, *huzi* ‘beard’ in *gua ge huzi* ‘have a shave’, denotes a type or in other words, a collection of all variants of the entities of this type.

- (4.16) 你们 做 准备, 我 刮 个 胡子。  
*nimen zuo zhunbei, wo gua ge huzi.*  
You.PL do prepare, I shave GE beard.

You do some preparation, and I will have a shave.

The notion of referentiality has been briefly mentioned in the earlier sections and in order to better illustrate the property of [V ge X], it is necessary to clarify how this term as well as other related notions is used in this thesis.

Noun phrases can be either referential or non-referential. When a noun phrase is used to refer to an entity out of a type, which can be concrete or abstract, real or hypothetical, singular or

plural, the noun phrase is referential (Li and Thompson 1981). In (4.17) and (4.18), all the NPs underlined are referential.

- (4.17) a. He is a Chinese in the company.  
 b. I have put the flowers in the water.  
 c. He caught a salmon.

- (4.18) a. 他 有 一 个 方 法 赚 钱。  
*ta you yi ge fangfa zhuanqian*  
 he has one GE<sub>cl</sub> method earn.money.

He has a method to earn money.

- b. 我 吃 了 一 个 苹 果。  
*wo chi le yi ge pingguo.*  
 I eat ASP one GE<sub>cl</sub> apple.

I ate an apple.

- c. 这 里 附 近 有 一 个 花 园 吗?  
*zheli fujin you yi ge huayuan ma*  
 here nearby have one GE<sub>cl</sub> garden Q

Is there a garden nearby?

(4.18c) is ambiguous. It can be understood as the speaker is looking for a specific garden. i.e. the speaker knows which garden he/she is looking for; the other possible reading is that the speaker is asking about the existence of a garden but not a specific one, i.e. the garden is not known to the speaker. In other words, the existence of a garden from the speaker's perspective is not guaranteed. In this sense, the non-specific NP is less referential. But it does not matter that the NP denotes a specific or non-specific entity, *yige huayuan* 'a garden' refers to a concrete entity of the type and therefore the NP is still referential.

On the contrary, if a noun phrase refer to a type of entities, and in addition, it denotes the features of the entities the noun phrase can describe, the noun phrase is non-referential. The underlined noun phrases in (4.19) and (4.20) are all non-referential.

- (4.19) a. He likes salmon.  
 b. She bought a book, not a magazine.  
 c. A book is something one can read.

- (4.20) a. 他 吃 了 个 饭 就 走 了。  
           *ta chi le ge fan jiu zhou le.*  
           He eat ASP GE meal just leave ASP.  
           He had a meal and left.
- b. 恐龙 灭 绝 了。  
           *Konglong miejue le.*  
           Dinosaur extinct ASP.  
           Dinosaurs are extinct.

In (4.18c), the noun phrase *a salmon* refers to a fish that he caught, which is a concrete entity but in (4.20a), the noun phrase *salmon* denotes the features of a kind of fish, which he likes. In (4.20a), the noun *fan* ‘meal’ is a collocational object of the verb *chi* ‘eat’ in a splittable V-O compound and denotes qualities possessed by the type instead of a physical bowl of rice or a plate of vegetable. In (4.20b), the noun *konglong* ‘dinosaur’ denotes a type of huge animals in general and this type of non-referential noun phrases is also called generic (Li and Thompson 1981). In (4.20c), the noun phrase *a book* is also generic which denotes an ‘unlimited state’ (Huddleston and Pullum and 2002: 406). In other words, a generic NP denotes a permanent property inherited by a type of entities.

(In)definiteness is also an important concept regarding nominal category. When an NP refers to an entity out of a type but the speakers believe the hearers do not know about it and cannot distinguish it from other entities of this type, the NP is indefinite. On the other hand, when an NP refers to an entity that the speakers think is already known to the hearers, the NP is definite (Li and Thompson, 1981). Both definite and indefinite NPs are referential (Christophersen 1939, Givón 1978, Givón 1981). In the above examples, the underlined NPs in (4.17a), (4.17c), (4.18a) and (4.18b) are all indefinite and in (4.17b) are definite. In English, there are indefinite articles *a/an* and definite article *the* to mark the (in)definiteness. In Chinese, (in)definiteness of an NP is marked overtly by the use of demonstratives (4.21a), inherent restrictions of special structures, for example, BEI sentence (4.21b), BA sentence (4.21c) and topicalization structure (4.21d), as listed below, in contrast with (4.18b).

- (4.21) a. 他 吃 了 那 苹果。  
           *ta chi le na pingguo*  
           he eat ASP that pingguo.  
           He ate that apple.

- b. 苹果 被 他 吃 了。  
*pingguo bei ta chi le.*  
 apple BEI he eat ASP.

The apple was eaten by him.

- c. 他 把 苹果 吃 了。  
*ta ba pingguo chi le.*  
 he BA apple eat ASP.

He ate the apple.

- d. 苹果 他 吃 了。  
*pingguo ta chi le.*  
 apple he eat ASP.

The apple, he ate.

In (4.18b), the NP is indefinite and the speaker does not expect the hearer to know which apple he/she is talking about. On the contrary, in (4.21a), the noun is preceded by a demonstrative, *na* ‘that’ and the speaker believes the hearer is able to identify which apple he/she is talking about. (4.21b) and (4.21c) are in the forms of Chinese BEI sentence and BA sentence, respectively. These sentences require the nouns preposed by BEI and BA have a definite interpretation (Li and Thompson 1981). In (4.21d), the topicalized NP *pingguo* ‘apple’ is definite because of the semantic constraints on the topicalization structure.

In some cases such as (4.22), the definite or indefinite reading of the noun *pingguo* ‘apple’ is determined by the context.

- (4.22) 我 吃 了 苹果 了。  
*wo chi le pingguo le.*  
 I eat ASP apple CRS.

I have had the apple/ I have had an apple.

In (4.22), if the apple has been mentioned in the earlier conversation, *pingguo* ‘apple’ is definite; otherwise, it is indefinite.

Givón (1978) also noted that NPs in the subject position in most languages tend to be definite and those in the object position are most commonly used to introduce indefinite entities. NPs, which denote the topic or old information, tend to be definite and new information is introduced by indefinite nouns.

So far, three pairs of terms related to NP have been introduced, referential and non-referential, specific and non-specific, and definite and indefinite. Referentiality is the basic condition to (in)definiteness and (non)specificity. (In)definiteness is about the knowledge of the hearer expected by the speaker and (non)specificity is tied to the speaker's knowledge. So, from the speakers' perspective, definite and indefinite NPs are normally specific. On the other hand, since the existence of the entities denoted by non-specific NPs is not known to the speakers, non-specific NPs are less referential.

In the [V *ge* X] pattern, when X is a noun or other complex nominal structures like those in (4.7), they are all non-referential. When X is the collocational object of the previous verb, according to Li and Thompson (1981), it is usually non-referential. Example (4.23) illustrates this point.

- (4.23) 你 先 去 刷 个 牙。  
*ni xian qu shua ge ya*  
 you first go brush GE tooth  
 You go to brush teeth first.

*Ya* 'tooth' in (4.23) is nonreferential and does not refer to any specific entity. It is a collocational object of the verb *shua* 'brush' and they altogether denote an activity of brushing teeth. If *ya* 'tooth' is construed as referential, then it can only be understood as its singular form since there is no overt numeral before *ge*. Therefore, the expression is interpreted as 'you go to brush one tooth'. It is possible to get access to this meaning in certain rare contexts, but it is not the most natural interpretation. In this sense, *ya* 'tooth' is primarily non-referential here. Similarly, in (4.3) and (4.4), the collocational objects in [V *ge* X] have been preceded by adjectives and numerals like normal referential NPs, but they still cannot be understood as a concrete instance of the type denoted by the NPs. The reason is that those adjectives and numerals do not function over the nominal object but the whole action. To be more specific, in (4.3) (here repeated as (4.24)), *xiangtian* 'sound' does not modify the noun *wujiao* 'snooze' but the whole sleeping event, and the adjective phrase before *gong* 'bow' indicates the manner of bowing.

(4.24) a. 睡 了 一 个 特别 香甜的  
*shui le yi ge tebie xiangtiande*  
 sleep ASP one GE especially sound  
 午觉  
*wujiao.*  
 noontime.snooze

(He) had a very sound noontime snooze.

b. 他 鞠 了 个 短， 硬， 而 十分  
*ta ju le ge duan, ying, er shifen*  
 he bend ASP GE short, hard, but very  
 恭敬的 躬。 (from the CCL)  
*gongjingde gong.*  
 respectful bow.

He made a brief, stiff but very respectful bow.

In (4.4) (repeated as (4.25)), the numerals preceding *ge* are not used to indicate the numbers of the entities denoted by the following nouns, but the occurrence of the action designated by the whole expression. These expressions have unique features from those involving verbal classifiers, which are used with numerals to indicate the frequency of action occurrences. First of all, the idiomatic VPs in (4.25) designate an action that can be completed in very short time. Second, in these expressions, the performances of the action designated by the idiomatic VPs occur in succession and are not interrupted. Both features are observed in the use of numerals other than *yi* ‘one’ in the [V *ge* X] pattern but for verbal classifiers, there are no such requirements.

(4.25) a. 我 禁不住地 一连 打 了  
*wo jinbuzhudi yilian da le*  
 I cannot.help in.succession hit ASP  
 两 个 哈欠。  
*liang ge haqian.*  
 two GE yawn.

I couldn’t help yawning twice in succession.



b. 小车	一连	向前	翻	了
<i>xiaochē</i>	<i>yilian</i>	<i>xiangqian</i>	<i>fan</i>	<i>le</i>
little.car	in.succession	forwards	turn	ASP
好几	个	跟斗。		
<i>haoji</i>	<i>ge</i>	<i>gendou.</i>		
several	GE	somersault.		

The toy car turned several somersaults forwards in a row.

Similarly, in the other instances of [V *ge* N] in which N is not the collocational object of the preceding verb, the nominal element following *ge* also denotes a type of a concept instead of concrete and discrete portions or entities. The existence of the entities of this type is not important in the discourse but without the information conveyed by the NPs, the event designated by this [V *ge* N] pattern is not complete. Furthermore, all these NPs in [V *ge* N] do not have much thematic importance and will not be mentioned in the following context. In (4.15), *shizhong* ‘clock’ following *ge* is referential and indefinite since it is a new information introduced and is mentioned and further described in the following contexts. But in (4.5), (4.6) and (4.7), the NPs following *ge* are not mentioned again in the following contexts. This fact also suggests that these NPs are non-referential since they are not identified in the following context as distinguishable entities.

As introduced above, one method of marking definiteness of NPs in Chinese is to use demonstratives, as illustrated in (4.21a), so NPs collocating with demonstratives are referential. Since in the [V *ge* N] pattern, the N slot is filled by non-referential nouns or other non-referential nominal structures, the demonstratives are not compatible with the special use of *ge* in the post-verbal position. Then, all instances in Group 3 (listed in Chapter 3) in which post-verbal *ge* collocates with demonstratives are eliminated from the thesis.

The non-referential restriction on N in the [V *ge* N] type also prevents the special use of post-verbal *ge* appearing in Chinese presentative sentences. The main function of Chinese presentative sentences is to introduce an entity into a discourse (Li and Thompson 1981). There are two types of presentative sentences in Chinese, as instantiated below.

- (4.26) a. 欧洲 有 个 国家 叫 英国。  
*Ouzhou you ge guojia jiao yingguo.*  
 Europe has GE<sub>cl</sub> country call UK.  
 There is a country in Europe called UK.

- b. 远处 走 来 了 一 个 人。  
*yuanchu zou lai le yi ge ren*  
 Far.away walk come ASP one GE<sub>cl</sub> person.

A person came over from distance.

(4.26a) instantiates the first type that introduces an entity by claiming its existence at a certain location and the second type (4.26b), in the form of Verb- Subject sentence structure, introduces an entity by a motion denoted by the verb *zoulai* ‘walk (towards)’. For the first type, in addition to *you* ‘there be’, the verbs of postures, such as *zuo(luo)* ‘sit’, *tang* ‘lie’, *zhan* ‘stand’, etc. also indicate the existence of an entity. Moreover, in Chinese, the existence of an entity/entities can also be described with respect to other entities, such as in (4.27).

- (4.27) a. 他 有 个 女儿。  
*ta you ge nuer.*  
 he has GE<sub>cl</sub> daughter.

He has a daughter.

- b. 他 有 个 聪明的 大脑。  
*ta you ge congmingde danao.*  
 he has GE<sub>cl</sub> bright brain.

He has a bright mind.

Even though these instances are different from the previous existential sentences, they introduce the existence of an entity, too, by claiming its relativity with another entity, instead of by locating it at a certain position.

According to Li and Thompson (1981), in Chinese, copula verb *shi* ‘be’ can also express existence (4.28).

- (4.28) a. 房子 外面 有 个 花园。  
*Fangzi waimian you ge huayuan.*  
 House outside have GE<sub>cl</sub> garden.

There is a garden outside of the house.

- b. 房子 外面 是 个 花园。  
*Fangzi waimian shi ge huayuan.*  
 House outside COP GE<sub>cl</sub> garden.

What’s outside of the house is a garden.

According to the English translation, the above two types of existential sentences with *you* ‘have’ and *shi* ‘be’, respectively, have different meanings, but both of them denote the existence of an entity. Since all these types of existential sentences express the meaning of entity existence, it requires the post-verbal NPs to be referential. Thus, combined with the non-referential reading of X in [V *ge* X], it is sufficient to claim that in this pattern, V cannot be *you* ‘have’ or *shi* ‘be’ or other verbs used in existential sentences. According to this feature, the instances classified in Group 2 in Chapter 3, in which *ge* follows verbs of existence, are not considered further in this thesis.

Similarly, the other type of presentative sentence, which introduce the existence of entities by verbs of motion, also requires the post-verbal NPs to be referential, as in (4.26b). The verbs of motion here refer to those verbs that indicate something comes into existence or appear at a locus. Therefore, in the [V *ge* X] pattern, these verbs are ruled out, too and instances of this type in Group 6, which cannot be immediately classified, are discounted.

Instances in which *ge* follows a verb of motion designating the opposite process, i.e. disappear at a locus as in (4.29), are also eliminated.

- (4.29) 昨晚      跑      了      个      贼。  
*Zuowan      pao      le      ge      zei.*  
 Last.night    escape    ASP    GE    thief.  
 A thief escaped last night.

(4.29) is a presentative sentence, in the form of a V(erb)- S(ubject) sentence structure. *Pao* ‘escape’ is an intransitive verb, and its following NP *zei* ‘thief’ is not its object but its subject. Since all subjects nouns have to be referential (Li & Thompson 1981), this type of presentative sentence is also not compatible with [V *ge* X] pattern.

Moreover, the fact that [V *ge* X] does not tend to accept numerals before *ge* is also related to the non-referential restriction on the X slot. In a classifier phrase, the classifier, as discussed in Chapter 1, individuates the entities denoted by its following noun and further categorizes these entities according to the salient and inherent features shared. In this sense, classifiers provide a condition for a nominal concept to be countable in the form of discrete entities in conceptualization. Thus, the possibility of being numbered is the condition for the numerals in Chinese NPs with classifiers. On the contrary, if NPs are not construed as denoting discrete

entities, or in other words, referential, numerals are not accepted. Givón (1981) pointed that if an entity can be quantified, it should exist or be referential. And if the entity is referential, it is from a type. That is to say, only referential NPs can take numerals to mark their numbers. As N in [V *ge* N] is non-referential, it is reasonable and even required to drop the numerals before *ge*. However, in some instances of [V *ge* X], numeral *yi* ‘one’ is accepted before *ge* as in (4.24a) (here repeated as (4.30a)).

- (4.30) a. 睡 了 一 个 特别  
*shui le yi ge tebie*  
 sleep ASP one GE especially  
 香甜的 午觉  
*xiangtiande wujiao.*  
 sound noontime.snooze.

(He) had a very sound noontime snooze.

- b. 我 要 先 洗 一 个 澡。  
*wo yao xian xi yi ge zao.*  
 I want first wash one GE shower/bath.

I want to take a shower first.

In (4.30), *shuiwujiao* ‘noontime snooze’ and *xizao* ‘shower/bathe’ are splittable V-O compounds and with the insertion of *ge*, they form instances of the [V *ge* N] pattern. Even though there is a numeral *yi* ‘one’ preceding *ge* in (4.30), it cannot change the fact that *wujiao* ‘noontime snooze’ and *zao* ‘shower/bath’ are non-referential. If *yi* ‘one’ in (4.30) is deleted, the sentence is still grammatical and there is no influence on its propositional meaning. The data collected from corpus also suggest that [V *ge* X] pattern normally does not take numerals before *ge* unless that numeral is *yi* ‘one’. This can be explained by the unique function of *yi* ‘one’. When some new information is introduced to the discourse for the first time, the speaker does not expect the hearer to identify the entity or activity. Instead, the entity or activity denoted by an NP is identified by picking up a typical instance of this type according to its generic features. Givón (1981) suggested that the speaker wishes to complete two conflicting tasks: one is to introduce a referential entity or activity and the other is to expect the hearer to ‘identify it by its generic/type properties’. He believes only numeral *one* can complete these tasks because on one hand, *one* as a quantifying numeral, it implies existence and on the other hand, it denotes a meaning of ‘one out of a type’. According to Huddleston and Pullum (2002: 386), *one* in English unlike other numerals, has at least two functions: one

is numerical and the other is singulative. The singulative *one* does not contrast with other numerals but denotes the singular meaning. *Yi* ‘one’ in Chinese also can denote the singular meaning. In this sense, numeral *yi* ‘one’ has a similar function to the classifier *ge*. Furthermore, in the CCL corpus, in the modern Chinese sub-corpus, there are altogether 1,607,769 tokens of *ge*; among these tokens, about 14% are used in the combination with *yi* ‘one’, and the second most frequently used character with *ge* is *zhe* ‘this’ which only takes 5.5%. Thus, we can assume that due to the similar function with the classifier *ge* and their high frequency of co-occurrence, *yi* ‘one’ has a similar function with *ge*, even in the [V *ge* X] pattern. This claim can be supported by some instances from Beijing Dialect, which is very close to Mandarin Chinese.

- (4.31) 你 等等, 我 先 洗 一 澡。<sup>11</sup>  
*ni dengdeng, wo xian xi yi zao.*  
 you wait.wait, I first wash one shower/bath.

Wait me for a second; I will take a shower first.

In (4.31), *ge* in the [V *ge* X] pattern is replaced by singulative *yi* ‘one’, and there is no obvious meaning difference. That is to say, in this pattern, the singulative *yi* and *ge* are synonyms. However, *yi* and *ge* are different in many ways, after all the major function of *yi* ‘one’ is still numerical. As a result, the singulative *yi* is allowed to co-occur with *ge* in [V *ge* X] and even replace *ge* occasionally, but it is still preferable to be omitted.

To sum up, when X in [V *ge* X] is a nominal element, it is non-referential and does not refer to any particular existing entity but designates a type of nominal concept. Due to this feature, when X is nominal, the [V *ge* X] pattern does not accept presentatives verbs such as *you* ‘have/there be’, *shi* ‘be’, verbs of gestures (*zuo* ‘sit’, *tang* ‘lie’, etc.) or verbs of motion (*lai* ‘come’, *pao* ‘escape’) to fill the V slot. Furthermore, the use of numerals in an NP requires the referential reading, which conflicts with the property of X in [V *ge* X] and therefore, *ge* in this pattern does not typically take numerals other than *yi* ‘one’ and *yi* ‘one’ tends to be omitted as well. Although there are some instances in which *ge* co-occurs with numerals other than *yi* ‘one’, the numerals indicate the occurrence of the action designated by the whole expression rather than indicating the quantity of entities denoted by the following noun.

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<sup>11</sup> CCL\Contemporary\Literature\ Mainland\ Fendou

### 4.3.2 Aspectual Function of [V *ge* X]

The most significant semantic function of [V *ge* X] is that this pattern has a telic and bounded reading and the presence of *ge* in [V *ge* X] is closely related to this aspectual meaning. Compare (4.32) below:

(4.32) a. 洗 个 澡。  
*xi ge zao.*  
wash GE shower/bath.  
Have a bath/shower.

b. 洗 澡。  
*xi zao.*  
wash shower/bath.  
bathe/shower

(4.32a) is an instance of [V *ge* X] pattern and (4.32b) is its [V X] counterpart. Similar to their English translation, both events denoted by (4.32a) and (4.32b) occupy some time, but (4.32a) also indicates an endpoint comprised in the process (Kearns 2000), while for (4.32b), there is no obvious endpoint or outcome. That is to say, (4.32a) describes an event which has an endpoint and is expected to be completed but the scenario denoted by (4.32b) does not have this kind of outcome and it can potentially last forever. In other words, (4.32a) is telic and (4.32b) is atelic. We can further test the intuition about this difference of these two patterns with the methods Kearns (2000: 204) suggests as follows:

a. The effect of adverbials which target aspectual properties of events, such as their duration or temporal bounds.

b. The effect of tense and aspect verb forms on predicates of different classes.

In Chinese, we can adopt the adverbial clause initiated with *jiu*, ‘as soon as’ for telicity. When we test (4.32a) and (4.32b) with this method, we get the sentences below.

(4.33) a. 他 洗 个 澡 就 走。  
*ta xi ge zao jiu zou.*  
he wash GE bath as.soon.as leave.  
He will leave immediately after having a bath.

- b. \*他 洗 澡 就 走。  
*ta xi zao jiu zou.*  
 he wash bath as.soon.as leave.

(4.33b) is not acceptable for most native Chinese speakers and if we want to make (4.33b) grammatical, we need to put an endpoint to the event, like (4.34):

- (4.34) a. 他 洗 完 澡 就 走。  
*ta xi wan zao jiu zou.*  
 he wash finish bath as.soon.as leave.

He will leave as soon as he finishes bathing.

As for the second test method mentioned by Kearns (2000), the Chinese progressive marker *zai*, which is usually used with a predicate, may be used.

- (4.35) a. \*他 在 洗 个 澡。  
*ta zai xi ge zao.*  
 he progressive.marker wash GE bath.

- b. 他 在 洗 澡。  
*ta zai xi zao.*  
 he progressive.marker wash bath.

He is bathing.

Now it is evident that [V *ge* X] is telic and bounded while [V X], to the contrary, is atelic and unbounded.

So far, telicity and boundedness have been mentioned several times in the previous research on post-verbal *ge*, as introduced in Chapter 2. Yang (2011) mentioned that ‘perfective is the default aspectual viewpoint for the telic situations and imperfective is the default for atelic situation’. It seems that perfective is the basic condition for telicity. Depraetere (1995) defines telicity as when a situation ‘is described as having a natural or an intended endpoint which has to be reached for the situation as it is described in the sentence to be complete and beyond which it cannot continue’. There is a key word for this definition, endpoint and Depraetere (1995) modifies this endpoint as natural or intended. That means, telicity is an aspectual property of a clause and the endpoint is inherent. For example, ‘to eat an apple’ is telic because there is a natural endpoint of this expression namely when the whole apple is consumed. However, ‘to eat apples’ is atelic because the number of apples is unspecified and

thus there is no expected endpoint. This does not mean that ‘to eat apples’ cannot have an endpoint, if adverbial like ‘in five minutes’ is added, the eating- apple activity acquires an endpoint when the five minutes are up. This kind of endpoint is not inherent in the situation but provided, or in other words, atelic situations can be given endpoints and the situation is considered bounded. Depraetere (1995) further defines boundedness as ‘if a sentence represents a situation as having reached a temporal boundary, irrespective of whether the situation has an intended or inherent endpoint or not’. Adopting Smith (1997)’s terms, telicity represents situation aspect which is determined by the ‘internal structure of situations’, realized ‘by the verb and its argument’. Meanwhile, boundedness tends to represent the viewpoint aspect (Yang 2011).

Similar to (4.32a), the other variants of [V *ge* X] also share this telic and bounded aspectual meaning. For the sake of convenience, some instances above are repeated below in (4.36).

- (4.36) a. 他 天天 念, 每天 据 他  
*ta tiantian nian, meitian ju ta*  
 he everyday read, everyday according he  
 说, 必定 要 念 个 三 四 页。  
*shuo biding yao nian ge san si ye.*  
 say, must need read GE three four page  
 He reads everyday. According to him, he required himself  
 to read several pages everyday. (= (4.7e))

- b. 干得 好 赚 笔 钱 回来, 买  
*gande hao zhuan bi qian huilai, mai*  
 Do well earn CL money back, buy  
 个 彩电, 冰箱 的,  
*ge caidian, bingxiang de*  
 GE TV, fridge, NOM.  
 让 奶奶 妈妈 享享 福。  
*rang nainai mama xiangxiang fu.*  
 make grandma mum enjoy happiness.  
 If I do well and make some money, I can buy TV and fridge  
 or other appliance and make grandma and mum live better.  
 (= (4.7a))



- c. 工人们 都 跑 个 精光。  
*gongrenmen dou pao ge jingguang.*  
 worker.PL all run GE completely.bare.  
 All workers ran away. (=4.9a))
- d. 我 俩 决心 弄 个 水落石出。  
*wo lia juexin nong ge shuiluoshichu.*  
 we two determine make GE water.fall.stone.come.  
 Both of us determined to straighten up the whole matter. (to the extent that ‘the water recedes and all the stones are exposed’) (=4.11a))
- e. 列车 好像 要 和 天上的  
*lieche haoxiang yao he tianshangde*  
 train seem want with sky.above  
 银燕 比 个 高低。  
*yinyan bi ge gaodi.*  
 swallow compete GE high.low.  
 It seemed that the train would race with the swallow (to see which is faster). (=4.10))
- f. 蒙面 人 把 他 推 个 趔趄,  
*mengmian ren ba ta tui ge lieqie,*  
 covering.face person BA he push GE stagger,  
 夺路而逃。  
*duoluertao.*  
 grab.road.and.escape.  
 The man in mask pushed him violently, and fled. (=4.12a))
- g. 那 泪水 流 个 不停, 他  
*na leishui liu ge bu ting, ta*  
 that tears flow GE not stop, he  
 不 怕 她 笑话。  
*bu pa ta xiaohua.*  
 not scare she laugh.  
 The tears kept running down his face and he didn’t mind her seeing this. (=4.14a))

In (4.36a) and (4.36b), *ge* in the post-verbal position is followed by complex NPs. These NPs are not the collocational object of the preceding verbs as in (4.1) and (4.3). In (4.36a), *nian*

‘read’ is a transitive verb and the following NP indicates the length of the reading content but not what is read. This NP, however, is also part of the reading event, because it marks the ending point of the reading activity by setting up the length of content for reading. Without *ge*, the sentence is still grammatical; the presence of *ge* adds the information that the expected outcome of the reading event is that at least three pages of a book are read. In (4.36b), *mai* ‘buy’ is followed by a coordinated NP. It is not necessary that a TV and a fridge are bought together but (4.36b) indicates that my mother and grandmother will be happy when the TV-fridge –buying- event completes. That is to say, the following clause in (4.36b) implies the preceding clause of the [V *ge* N] pattern has an endpoint and therefore is telic and bounded. If *ge* is deleted, as in (4.37), the expression designates a buying action but since there is no *ge* preceding the nouns, this buying activity does not have an endpoint. This newly formed expression is less grammatical than (4.36b).

- (4.37) ? 买 彩电、 冰箱 的, 让 奶奶  
 ) ?  
*mai caidian, bingxiang de, rang nainai*  
 buy TV, fridge, etc., make grandma  
 妈妈 享享 福。  
*mama xiangxiang fu.*  
 mum enjoy happiness.  
 I can buy TV and fridge or other appliance and make grandma and mum live better.

This implies that these two instances with NPs in the X slot have acquired their telic and bounded reading relating to the presence of *ge*.

In the other instances in (4.36), X introduced by *ge* are not NPs. In (4.36c), the adjective *jingguang* ‘completely bare’ indicates that the worker-running.away event stopped when all workers left. Thus, *jingguang* ‘completely bare’ is not only the resultant state of the event but also marks its endpoint. It can be paraphrased into ‘workers ran until all workers were away’. Similarly, in (4.36d), *shuiluoshichu* ‘clearing up doubts by finding out the truth’ implies the endpoint of the investigation. (4.36d) means we decided to do the investigation until we straighten up the whole matter. That is to say, X following *ge* in (4.36c) and (4.36d) are not simply secondary predicates describing the activities but also endpoint of the event designated by the whole [V *ge* X] pattern which cannot be omitted. In (4.36e), *ge* is followed by an adjective phrase consisting of a pair of antonyms. This adjective phrase also marks the

endpoint of the racing activity. But in this instance, there are two possible outcomes, either to win or to lose. The competition will not cease until one of the participants, i.e. the train and the swallows, achieves one of the states denoted by the adjective phrase.

In (4.36f), X is a verb following *ge*, which marks the endpoint of the pushing action by introducing a successive staggering action. That is to say, the pushing action ends and transits into a staggering action. These two events, unlike the other instances in (4.36), have different agents. The man in mask pushed him, and he (not the man in mask) staggered. The patient argument in the first event is preposed by the morpheme BA.

The variant of [V *ge* X] instantiated in (4.36g) seems to be an exception because the event designated by the expression is not telic or bounded. Zhang (2003) argued that (4.36g) describes a long-lasting weeping activity and *buting* ‘not stop’ can be placed by a particle 地 *di* in a preverbal position as in (4.38) expressing a similar meaning. Although these two expressions describe the same event, they do not present the same perspective of the event.

- (4.38) 泪 不停 地 流。  
*lei buting di liu.*  
 tear non-stopping Adverbial.marker flow.

Tears kept running down his face.

In (4.38), *buting* with *di* means ‘continuously’ as an adverbial to modify the verb *liu* ‘flow’ and indicates the manner of the weeping action. In (4.36g) *buting* ‘not stop’ in the post-verbal position has a predicative function instead of modifying the preceding verb. Moreover, *ge* in (4.36g) cannot be replaced by the secondary predicate marker *de* as no such examples where *ge* was replaced by *de* were found in the CNCorpus or the CCL corpus. Based on the previous discussion, when X in [V *ge* X] is a non-nominal element, it sets up an endpoint to the event designated by V. That is to say, the action designated by the main verb will stop once the state or action described by X is reached. In this sense, *buting* ‘not stop’ is understood as a negated form of *ting* ‘stop’ so the endpoint of this action is negated. The endpoint of weeping is cancelled. From another perspective, in (4.36g), the [V *ge* X] pattern has set up an endpoint of this event, but the endpoint can never be reached. Despite the continuous meaning of the event designated by the expression, the presence of *ge* is outside the scope of negation and its individualizing function is not negated. The potential telic and bounded event meaning of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is further analysed in section 4.3.4.

To sum up, all the variations of [V *ge* X] pattern designate (or potentially designate) a telic and bounded event. For [V *ge* N] type, the presence of *ge* alone adds the telic and bounded aspectual meaning to the event designated by V and N. For the [V *ge* Non-N] type, *ge* introduces the non-nominal elements that mark the endpoint of the event designated by the preceding V.

### 4.3.3 [V *ge* X] as an Uninterruptable Event

As analyzed in previous sections, [V *ge* X] expresses a telic and bounded aspectual meaning. According to Lin (2003), a quantified NP as an object directly affects the event's telicity as well since it provides a natural endpoint to the activity. However, telicity is important for situation aspect, but it does not determine aspect alone. Boundedness, which determines the viewpoint aspect, should be taken into consideration as well (Depraetere, 1995).

- (4.39) a. 我 吃 了 个 苹果。  
           *wo chi le ge pingguo.*  
           I eat ASP GE<sub>cl</sub> apple.  
           I ate an apple.
- b. 我 吃 了 个 饭。  
           *wo chi le ge fan.*  
           I eat ASP GE meal.  
           I had a meal.

(4.39a) is a normal SVO structure with a classifier *ge* in the quantified object NP. Although there is no overt numeral preceding the classifier, the only possible quantity of apples denoted in (4.39a) is one. In other words, numeral *yi* ‘one’ is omitted. This quantified NP provides a natural endpoint to this ‘apple-eating’ activity. When this apple is finished, the eating activity ends. (4.39b) is an instance of [V *ge* X] pattern and *ge* is the key to the telic and bounded aspectual reading as analyzed in section 4.3.2. (4.39a) and (4.39b) both denote telic and perfective situation, but the event structure designated by these expressions are not the same. These differences can be tested by adding adverbial 差点 *chadian* ‘almost’ in (4.40) and by cancelling the completion of the event in (4.41).

(4.40) a. 我 差点 吃 了 个 苹果。  
*wo chadian chi le ge pingguo.*  
 I almost eat ASP GE<sub>cl</sub> apple.  
 I almost ate an apple.

b. 我 差点 吃 了 个 饭。  
*wo chadian chi le ge fan.*  
 I almost eat ASP GE meal.  
 I almost had a meal.

(4.40a) is ambiguous and can be interpreted in two ways: interruption of completion and interruption of intention. It means ‘I started eating the apple but I did not finish all’ or means ‘I did not start eating the apple at all’. Both interpretations can be naturally accessed. (4.40b) only has the interruption of intention meaning which means ‘I did not even start having the meal’. That is to say, in (4.40a) the adverbial’s semantic scope can cover either the whole activity or part of the activity; in (4.40b), the adverbial can only be interpreted as functioning over the event designated by the whole [V *ge* N] pattern.

Another test as (4.41) can also illustrate the difference.

(4.41) a. 我 吃 了 个 苹果， 但是  
*wo chi le ge pingguo, danshi*  
 I eat ASP GE<sub>cl</sub> apple, but  
 没 吃 完。  
*mei chi wan.*  
 not eat finish.  
 I ate an apple, but I did not finish it.

b. \*我 吃 了 个 饭， 但是 没 吃 完。  
*wo chi le ge fan, danshi mei chi wan.*  
 I eat ASP GE meal, but not eat finish.  
 I had a meal, but I did not finish it.

By adding the second clause in (4.41), the completion of the event is cancelled. (4.41a) is still acceptable after the cancellation although the English translation may sound strange to native speakers. (4.41b) is not grammatical, which indicates the event in the first clause is already bounded and is not able to break or intervene. This suggests that (4.41a) is potentially telic but not necessarily bounded, so the inherent endpoint denoted by the object can be cancelled

by interrupting. Based on the tests in (4.40) and (4.41), [V *ge* N] variation of [V *ge* X] has been argued to denote an uninterruptable event as a whole.

As to the other [V *ge* X] variations, X is recognized as the endpoint that the action designated by the preceding verb has to achieve and cannot continue beyond. That means the situation denoted by X is the result of the event and also an important part of the event. The event cannot be complete without X. Thus, although X is not an argument of the preceding verb introduced by *ge*, it is part of the telic event and is an inherent endpoint of the event designated by the structure. Furthermore, since the endpoint of the events designated by the [V *ge* Non-N] type is overtly expressed, these events are also unbreakable and uninterrupted. By using the same syntactic tests as in (4.40) and (4.41), instances of [V *ge* Non-N] pattern can be proved to designate a complete event and the endpoint designated by the structure cannot be cancelled by additional clause as in (4.41), either.

#### **4.3.4 (Ir)realis mood of [V *ge* X]**

Based on the analysis above, the [V *ge* Non-N] variant of the [V *ge* X] pattern instantiated in (4.36c)-(4.36f) is perceived to be telic and bounded in a different way from the [V *ge* N] instantiated in (4.36a) and (4.36b). In (4.36a) and (4.36b), the nominal element following *ge* is an argument of the preceding verb. *Ge* in these instances adds an endpoint to the event designated by the expression, but the endpoint is not overtly expressed. In (4.36c)-(4.36f), the endpoint of the event is overtly marked by the expression introduced by *ge*. The action designated by the verb stops when the state or action denoted by the expression following *ge* starts. That is to say, [V *ge* Non-N] pattern denotes a telic and bounded event by adding the endpoint to an event. As to the [V *ge* N] type, the noun following *ge* is the object of the preceding verb so without *ge*, the noun and the preceding verb still construct a well-formed VP. As analysed above, *ge* in the [V *ge* X] pattern has an individualizing function. The [V *ge* N] type designates an instance of the event denoted by its [VN] counterpart and the [V *ge* Non-N] type designates an instance of the event denoted by V with an outcome indicated by the non-nominal elements. [V *ge* N] involves a single event while [V *ge* Non-N] is about two events.

In the instances above, when X is filled with words of properties (adjectives and modifying four-character-idioms), they are interpreted as describing the properties at the extreme end on

the scale of degree. These adjectives cannot be gradable in the [V *ge* X] pattern and mark the ultimate degree that the action designated in this pattern aims to achieve. As in (4.36c) and (4.36d), the expressions following *ge* denote the extreme degree and leave no possibility for the action progressing onwards. In (4.36c), if all the workers have run away, there is no more left and the running-away-event has to stop. In (4.36d) when the truth is revealed, doubts are cleared and the ultimate goal of the investigation has been achieved, there is no necessity to continue the investigation. Thus, the [V *ge* X] pattern prefers to select words or expressions indicating a specific degree or situation which can guarantee the action will cease once the degree or situation is reached. Moreover, since the non-nominal elements in [V *ge* Non-N] are normally filled by expressions describing a situation or state of extreme degree which is rarely achieved in the real world, the events designated by this kind of [V *ge* Non-N] type are often in the irrealis mood. In (4.36d) and (4.36e) which are all instances of the [V *ge* Non-N] pattern, the event designated by these expressions are all still within the realm of thought (Bhat 1999: 65). These instances express the speaker's determination or wish to accomplish the event designated by the whole expression. In (4.36c), there are no modal verbs like *yao* 'want' to emphasize the irrealis reading and the irrealis mood is overridden by the following context, which describes the empty factory in a mess.

As to the [V *ge* N] variant, some instances listed above of this structure also denote the irrealis mood, such as (4.1b) and (4.6), which are repeated as (4.42) below.

- (4.42) a. 你们 做 准备, 我 刮 个 胡子。  
*nimen zuo zhunbei, wo gua ge huzi.*  
 You.PL do prepare, I shave GE beard.  
 You do some preparation, and I will have a shave.  
 (= (4.1b))

- b. 留着 买 个 米 打 个 油。  
*liuzhe mai ge mi da ge you.*  
 save buy GE rice hit GE oil.  
 Save (the money) for buying some rice or oil.  
 (in case of rice-buying or oil- buying) (= (4.6a))

- c. 我 要 到 邻国的 餐厅  
 wo yao dao linguode canting  
 I want go neighbour.country restaurant  
 借 个 厕所, 三 分钟 回来.  
 jie ge cesuo, san fenzhong huilai.  
 borrow GE toilet, three minutes back.  
 I will go to use the toilet in the restaurant of the  
 neighbouring country and I will be back in three  
 minutes. (= (4.6b))

In these instances, the [V *ge* N] pattern designates events that will occur in the future and are not real at the point the speech. (4.42a) and (4.42b) do not have future markers like *qu* ‘go’ as in (4.42c), so the irrealis reading is inferred from the [V *ge* N] pattern itself.

Not all the instances of the [V *ge* X] pattern listed above denote the irrealis mood. Some instances like (4.36c) have the irrealis mood cancelled by the context and most of the instances acquire the realis reading by co-occurring with the aspectual marker *le*, as in (4.43).

- (4.43) a. 各 种 机器人 把 这儿 围  
 ge zhong jiqiren ba zher wei  
 each type robot BA here surround  
 了 个 水泄不通。  
 le ge shuixiebutong.  
 ASP GE water.leaking.no.through.  
 All kinds of robots overwhelmed the place.  
 (even water cannot go through). (= (4.10b))
- b. 睡 了 一 个 特别 香甜的  
 shui le yi ge tebie xiangtiande  
 sleep ASP one GE special sound  
 午觉  
 wujiao.  
 noontime.snooze.  
 (He) had a very sound noontime snooze. (= (4.24a))
- c. 金明 把 陆宏 翻 了 个 身。  
 Jinming ba Luhong fan le ge shen.  
 Jinming BA Luhong turn ASP GE body.  
 Jinming turned Luhong over. (= (4.1a))



*Le* is widely accepted to be a typical perfective aspect marker in Chinese and is used in sentences denoting telic and bounded situations. In (4.43) all the examples contain this aspect marker *le* and designate events which have occurred. *Le* is widely believed to be an event-terminator, which marks the completion of an activity designated by the verb. In (4.41a), *le* is used in the first clause but the completion meaning is cancelled by the second clause. That means *le* does not terminate the activity of apple-eating. In other words, the presence of *le* does not guarantee the event designated by the preceding verb is completed, which is different from [V *ge* X]. Furthermore, if *ge* in (4.43) is deleted or replaced by *de*, as in (4.44), the sentences are ungrammatical or at least less acceptable.

- (4.44) a. \*各种 机器人 把 这儿 围  
*ge zhong jiqiren ba zher wei*  
 each type robot BA here surround  
 得 了 水泄不通。  
*de le shuixiebutong.*  
 ASP GE water.leaking.no.through.

All kinds of robots overwhelmed the place.  
 (even water cannot go through).

- b. \*睡 了 特别 香甜的 午觉  
*shui le tebie xiangtiande wujiao.*  
 sleep ASP especially sound noontime.snooze.

(He) had a very sound noontime snooze. (= (4.24a))

- c. ??金明 把 陆宏 翻 了 身。  
*Jinming ba Luhong fan le shen.*  
 Jinming BA Luhong turn ASP body.

Jinming turned Luhong over. (= (4.1a))

Li and Thompson (1981) believed (4.44) is not well-formed because *le* is used in an atelic expression. If an endpoint of the event is added, (4.44) will be acceptable. That is to say, *le* is normally used in a bounded complete situation but it does not mark the endpoint or boundary. In (4.43) the endpoint of the event is denoted by the [V *ge* X] pattern, so it is compatible with *le*. Thus, the aspect marker *le* does not terminate activity or mark endpoints of events. However, the presence of *le* in the [V *ge* X] pattern overrides the irrealis reading of the structure (Shang 2009).

Another feature related to the (ir)realis reading of the [V *ge* X] pattern shown by the data collected is that the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] type does not often occur with the aspectual marker *le*. To

test this intuition, I carried out a small pilot study using data from the contemporary sub-corpus of the CCL corpus because it contains more data than the CNCopus. I searched for all instances containing *ge +buting* ‘not stop’, a type of the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern and I got altogether 1,588 instances of the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern. Only one instance contains the aspectual marker *le*, listed in (4.45).

- (4.45) 雨 下 了 个 不 停。  
*yu xia le ge bu ting.*  
 rain descend ASP GE not stop.

The rain kept raining.

The result suggests that [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern rarely co-occurs with the aspectual marker *le*. However, even without *le*, instances of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] designate realis events, as in (4.46).

- (4.46) a. 那 泪水 流 个 不 停， 他  
*na leishui liu ge bu ting, ta*  
 that tears flow GE not stop, he  
 不 怕 她 笑话。  
*bu pa ta xiaohua.*  
 not scare she laugh.

The tears kept running down his face and he didn’t mind her seeing this. (= (4.14a))

- b. 照相机 噼里啪啦 响 个 不 停， 她  
*zhaoxiangji pilipala xiang ge bu ting, ta*  
 camera cracking sound GE not stop, she  
 简直 不 知道 怎么 办 了。  
*jianzhi bu zhidao zenme ban le.*  
 just not know how deal ASP.

People kept taking photos of her and she didn’t know what to do. (= (4.14b))

- c. 李逵， 李鬼， 一 天 到 晚 闹  
*Li.Kui Li.Gui yi tian dao wan nao*  
 Li.Kui Li.Gui one day to night do  
 个 不 清。  
*ge bu qing.*  
 GE not clear.

Li Kui and Li Gui are always mixed up.

Instances in (4.46) all designate actualized events which are therefore in the realis mood. There is no additional marker of this realis reading, so the possible explanation is that the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] variant, unlike the other [V *ge* X] variants, is a mechanism to denote realis state. In order to prove that the realis reading of the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern is not from the context of past-tense or present tense, I searched for instances in which [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern is used in a context of future-time. By using the same data of [V *ge* *buting* ‘not stop’], there were only two instances used in the future-tense which are listed in (4.47).

- (4.47) a. 如今的 宴席上 要是 出现 这样的  
*rujinde yanxishang yaoshi chuxian zheyangde*  
 current feast if appear such  
 肉, 美食家 一定会 对  
*rou, meishijia yiding hui dui*  
 meat, gourmets must will to  
 厨师的 刀工 赞 个 不停。  
*chushide daogong zan ge buting.*  
 chef's cutting.technique praise GE not.stop.

If such a dish could be presented at feast, the gourmets must be surprised by the cutting technique.

- b. 要是 我 在外面 过 一夜 没有  
*yaoshi wo zai waimian guo yiye meiyou*  
 if I at outside spend one.night not  
 详细说明, 就要 埋怨 个 不停。  
*xiangxi shuoming, jiuyao maiyuan ge buting.*  
 detail explain, must complain GE not.stop

If I stay outside overnight without detailed explanation, (he) will definitely be complaining for a long time.

These instances do not designate events which have happened or initiated, but as long as the condition is satisfied, the event designated by the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] structure will definitely occur. Thus, according to Elliott (2000: 68), the certainty of the occurrence is sufficient to claim that these events are in the realis mood.

It can be suggested that the realis reading of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern is possibly generated from the negation on V<sub>2</sub> because this is its salient difference from other variants of the [V *ge* X] pattern. As analyzed in section 4.3.2, the negation in the X slot cancels the endpoint of [V<sub>1</sub> *ge* Neg V<sub>2</sub>], and the telic and bounded event reading of this structure is not directly perceived.

Based on the pilot study, the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern does not frequently occur in the context of future tense and most commonly found in instances of past tense. The past tense indicates that the event occurred in the past and has stopped at the point of the speech. Thus, the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern also designates telic and bounded events. This particular structure of telic and bounded meaning, compared with other variations of the [V *ge* X] pattern, involves strong subjective attitude towards the event designated by the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] type. As indicated in the instances in (4.45)-(4.47), [V<sub>1</sub> *ge* Neg V<sub>2</sub>] designates an event lasting longer than normal, from the speaker's perspective. So this pattern implies the speaker believes the event is abnormal. In addition, based on the data collected from the corpora, in the [V<sub>1</sub> *ge* Neg V<sub>2</sub>], V<sub>2</sub> is typically filled by verbs of stopping, so (4.46c) is a marginal instance in the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] type. (4.46c) emphasizes the speaker's down toning attitude towards the event.

To sum up, [V *ge* N] and [V *ge* Non-N] variations designate events of irrealis mood but when they co-occur with the aspectual marker *le*, the irrealis reading is cancelled or in other words, the designated events are actualized. The [V<sub>1</sub> *ge* Neg V<sub>2</sub>] variant of the [V *ge* X] pattern, unlike the other ones, designates realis events and it tends to be used in the context of past tense.

### 4.3.5 Discussion

This section discusses some possible explanations for the syntactic restrictions on the [V *ge* X] pattern based on its semantic properties analysed in the previous sections.

#### 4.3.5.1 Restriction on [V *ge* Neg Adj.]

As mentioned in Chapter 2, when X in the [V *ge* X] is an adjective, it is normally not negated. In the comparison of *ge* and *de* in post-verbal position in Chapter 2, one difference is that the adjective can be negated when following *de* as in (4.48a) but not with *ge* (4.48b).

- (4.48) a. 衣服 洗 得 不 干净。  
*yifu xi de bu ganjing.*  
 clothes wash DE not clean.  
 Clothes are not washed clean.

- b. \*衣服 洗 个 不 干净。  
*yifu xi ge bu ganjing.*  
 clothes wash GE not clean.

In (4.48a), *buganjing* ‘not clean’ following *de* indicates the extent or the result of the current stage of the washing- clothes activity, i.e. the state of the clothes being clean after washing. The sentence describes an objective state but does not mark an endpoint of the washing-event. In (4.38b), however, *bu ganjing* ‘not clean’ does not indicate a specific degree of being clean and it cannot mark an accurate endpoint of the washing-clothes activity. The instance in (4.47) is different from (4.48b) because there is not intermediate situation between *ting* ‘stop’ and *buting* ‘not stop’. So in this sense, *buting* ‘not stop’ also designates a specific state. (4.48b) is not always unacceptable. In certain context, like (4.46c), when the speaker’s subjective attitude is emphasized, (4.48b) implies the speaker is not happy with the result that the clothes were not washed clean. However, it is very rare and in the CNCopus, only one instance of this type was found. So it is not considered as a typical use of the [V *ge* X] pattern.

#### 4.3.5.2 [V *ge* X] and the Experiential Aspect Marker *Guo*

Based on the analogy between classifier *ge* and the special use of *ge* in post-verbal position, the [V *ge* X] pattern designates a discrete bounded event from ‘mass’ activities and the event is concrete and foregrounded. In other words, the event in [V *ge* X] is ‘referential’. This feature can offer an explanation for other syntactic features of the [V *ge* X] pattern. For example, [V *ge* X] is not compatible with the experiential aspect marker *guo* because *guo* indicates ‘an event has been experienced with respect to some reference time’ (Li and Thompson 1981)

- (4.49) 我 吃 过 苹果。  
           *wo chi guo pingguo.*  
           I eat EXP apple  
           I have had apple.

In (4.49), the focus of the sentence is the occurrence of the eating event with respect to the current time reference, but it does not concern the other information of the event, such as when the event happens. That is to say, the experiential aspect marker *guo* emphasizes the experience of a type of events rather than a particular instance. The context, in which *guo* is used, conflicts with the concrete and foregrounded reading of [V *ge* X], and therefore this experiential aspect marker is not allowed in [V *ge* X].

### 4.3.5.3 Extended Form of [V *ge* X]

In section 4.2, instances as (4.3) (here repeated as (4.50)) were discussed and concluded that the adjective phrases do not modify the NP as collocational objects because these NPs are non-referential. These adjective phrases are used to describe the manner of the event.

- (4.50) a. 睡 了 一 个 特别 香甜的  
*shui le yi ge tebie xiangtiande*  
sleep ASP one GE special sound  
午觉  
*wujiao.*  
noontime.snooze.

(He) had a very sound noontime snooze.

- b. 他 鞠 了 个 短, 硬, 而 十分  
*ta ju le ge duan, ying, er shifen*  
he bend ASP GE short, hard, but very  
恭敬的 躬。  
*gongjingde gong.*  
respectful bow.

He made a brief, stiff but very respectful bow.

In (4.50) *ge* cannot be deleted. Since [V *ge* N] designates an instance of an activity, the referential reading of the event enables internal modifiers in [V *ge* N] to describe the manner of this specific event. But its [VN] counterpart designates a type of activities which cannot be specifically modified. So [VN] structure does not allow internal modifiers to separate the compound.

Moreover, in section 4.3.1, instances such as (4.25) (repeated as (4.51)) of the [V *ge* N] pattern in which *ge* co-occurs with numerals other than *yi* ‘one’ were analyzed and two features of these expressions have been concluded: the action designated by the idiomatic VP can be completed in very short time; in these expressions, the performances of the action designated by the idiomatic VPs occur in succession and are not interrupted.

- (4.51) a. 我 禁不住地 一连 打 了  
*wo jinbuzhudi yilian da le*  
 I cannot.help in.succession hit ASP  
 两 个 哈欠。  
*liang ge haqian.*  
 two GE yawn.

I couldn't help yawning twice in succession.

- b. 小车 一连 向前 翻 了  
*xiaochē yilian xiangqian fan le*  
 little.car in.succession forwards turn ASP  
 好几 个 跟斗。  
*haoji ge gendou.*  
 several GE somersault.

The toy car turned several somersaults forwards in a row.

In (4.51), *ge* individualizes the yawning and turning-somersault events and the numerals associated with *ge* are used to count the frequency of the events. In this sense, *ge* in these instances is like a verbal classifier. But if *ge* is replaced by verbal classifiers, such as *ci* 'time' in (4.52), the meaning of the successive performances of the action loses.

- (4.52) a. 我 禁不住地 打 了 两 次 哈欠。  
*wo jinbuzhudi da le liang ci haqian.*  
 I cannot.help hit ASP two CL<sub>v</sub> yawn.

I couldn't help yawning twice.

- b. 我 禁不住地 打 了 两 个 哈欠。  
*wo jinbuzhudi da le liang ge haqian.*  
 I cannot.help hit ASP two GE yawn.

I couldn't help yawning twice. (in succession)

In order to avoid ambiguity, the adverbial *yilian* 'in succession' is deleted in both examples in (4.52). Despite this, the 'in succession' meaning is still available in (4.52b) but does not exist in (4.52a). It is possible to understand the two performances of yawning occur in succession. This unique feature of (4.52b) is also attributed to the referential event reading of [V *ge* X]. Numerals in (4.52b) co-occur with *ge* which is part of the [V *ge* X] pattern denote telic and bounded events. But verbal classifiers as in (4.52a) is an added particle to the idiomatic VP. [V *ge* X] pattern with numerals other than *yi* 'one' designates a collection of events perceived

together. The idiomatic VPs without *ge* as demonstrated in section 4.3.2, may be atelic and unbounded. Thus, the verbal classifiers with numerals as in (4.52a) are used to count the occurrence of the events designated by the idiomatic VP. The verbal classifiers, similar to the experiential aspect marker *guo*, emphasize the occurrence or experience of an event, regardless of the duration of the event or when the event occurs. So (4.52a), compared with (4.52b), does not imply the meaning that the performances of yawning occur in succession.

### 4.3.6 Summary

To sum up section 4.3, all variants of the [V *ge* X] pattern demonstrate four semantic features:

- 1) In the [V *ge* X] pattern, when X is a nominal element, it is non-referential;
- 2) the [V *ge* X] pattern as a whole designates a telic and bounded event;
- 3) the event designated by [V *ge* X] is complete and cannot be interrupted;
- 4) the events designated by the [V *ge* X] pattern are in the irrealis mood and those by the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern are in the realis mood.

Based on these semantic properties, some syntactic restrictions on the [V *ge* X] pattern can be explained, such as restrictions on the negated form of V<sub>2</sub>, restriction on the preceding verb and the combinatory ability with other aspectual markers, such as *guo* and *le* and the limitation on the combinatory ability with numerals.

So far, the syntactic features and semantic properties of the [V *ge* X] pattern have been analyzed based on the instances collected from the corpus. As mentioned in Chapter 3, there are still many instances involving post-verbal *ge* left in Group 6. In the following section, these instances are distinguished according to the typical properties of the [V *ge* X] pattern.

## 4.4 Criteria to Distinguish *Ge* as Classifier and *Ge* in [V *ge* X]

Since in the [V *ge* N] pattern, N is filled with non-referential nouns or other nominal structures, it is not compatible with demonstratives, presentative verbs, so some instances in Group 1 (in which *ge* is preceded by copular *shi*), all instances in Group 2 (in which *ge* is



preceded by existence verbs) and Group 3 (in which post-verbal *ge* collocates with demonstratives) are eliminated from the thesis. Group 6 categorized in Chapter 3 includes instances in which *ge* as a classifier is used between verb and noun without numerals. This structure is presented as [V *ge*<sub>cl</sub> N]. Sometimes [V *ge*<sub>cl</sub> N] and the [V *ge* X] pattern are not clear-cut and hard to distinguish. This section summarizes some criteria to distinguish these two patterns based on the features of the [V *ge* X] pattern analyzed above.

In Group 1, instances involve *ge* following copulas, such as *shi* ‘be’ and *xiang* ‘seem’, such as (4.53).

- (4.53) a. 原来        死者        是        个  
*yuanlai*      *sizhe*      *shi*        *ge*  
 turns.out    deceased   COP      GE  
 24            岁的        姑娘。  
*24*            *suide*      *guniang*.  
 24            year.old   girl.

It turns out that the deceased is a 24-year-old girl.

- b. 孙吉        像        个        幽灵    一样。  
*Sunji*      *xiang*    *ge*      *youling* *yiyang*.  
 Sunji      is.like   GE    ghost    same.

Sunji is like a ghost.

According to Li and Thompson (1981), copulas in Chinese link a referential NP as the subject and a non-referential NP that is not the object. The non-referential NP is to ‘characterize or identify the referent of the subject’ NP. So although post-verbal *ge* in these instances are followed by non-referential NPs, the NPs are not the object of the verb. So it does not fit the syntactic structure of [V *ge* N]. Thus, all instances in Group 1 are not [V *ge* N] pattern.

As discussed above, N in [V *ge* N] is non-referential and *ge* in this pattern does not tend to take numerals. If there are numerals (other than one) preceding *ge* in the [V *ge* X] pattern, the events designated by the expression have to satisfy two requirements: actions can be completed in short time; actions are performed in succession. Then the first criterion is that if a numeral can be added back overtly before *ge* and is used to quantify the following noun, then this pattern is [V *ge*<sub>cl</sub> N]. So (4.54a) is a classifier structure and (4.53b) is an instance of [V *ge* X].

- (4.54) a. 吃 (一) 个 苹果。  
*chi (yi) ge pingguo*  
 eat (one) GE<sub>cl</sub> apple.

Eat an apple.

- b. 吃 \*(一) 个 饭。  
*chi \*(yi) ge fan*  
 eat \*(one) GE meal.

Have a meal.

Second, since the N in [V *ge* X] is non-referential, it has low thematic importance. The entity denoted by the NP will not be referred again in the following context. If its anaphor appears in the following context, then *ge* is a classifier. In (4.55), the noun following *ge* has a coreferential relationship with the subject of the following clause.

- (4.55) 我 要 给 你 介绍 个 对象。  
*wo yao gei ni jieshao ge duixiang.*  
 I want to you introduce GE girlfriend.  
 在 西安 工作。  
*zai Xi'an gongzuo.*  
 In Xi'an work.

I would like to introduce a girl to you (as a potential wife). (She) works in Xi'an.

Third, as a non-referential noun, N in [V *ge* X] does not take modifiers, unless the modifier is used to modify the action designated by the whole expression.

- (4.56) 他 给 妻子 取 了 个 地地道道的  
*ta gei qizi qu le ge dididaodaode*  
 he for wife give ASP GE authentic  
 中国 名字。  
*zhongguo mingzi.*  
 Chinese name

He gave his wife an authentic Chinese name.

In (4.56), the adjectives are used to modify *mingzi* 'name' not the name-giving event so *ge* in this instance is a classifier.

Fourth, since [V *ge* X] pattern has a telic and bounded aspectual meaning, it does not co-occur with the progressive aspect marker *zhe*. So all instances in which the preceding verb co-occur with *zhe* are [V *ge*<sub>cl</sub> N].

- (4.57) 他 提 着 个 黑色 牛皮 公事包。  
*ta ti zhe ge heise niupi gongshibao.*  
 he carry PROG GE black leather briefcase  
 He is carrying a black leather briefcase.

With the help of these criteria, some instances in which *ge* as a classifier can be identified, but there are still many instances, like those in (4.58), which cannot be categorized easily by these methods.

- (4.58) a. 你 住在 什么 地方, 留 个  
*ni zhuzai shenme defang, liu ge*  
 you live what place, leave GE  
 地址 吧。  
*dizhi ba.*  
 address interj.

Where do you live? Could you leave an address?

- b. 我 找 您 商量 个 事。  
*wo zhao nin shangliang ge shi.*  
 I find you discuss GE issue.

I'm here to discuss something with you.

- c. 他 扮 了 个 鬼脸。  
*ta ban le ge guilian.*  
 he make ASP GE ghost.face.

He made a face.

The nouns following *ge* in these instances can be construed as either referential or non-referential and *ge* in these instances can either be a classifier functioning on the following noun or a part of the [V *ge* X] pattern functioning over the whole event. As in (4.58a), *dizhi* 'address' following *ge* can be referential but non-specific and then *ge* is a classifier. Or, it can be non-referential and *liu ge dizhi* 'leave an address' is comprehended as a unit designating an event. In (4.58b), *ge* can be replaced by another classifier, such as *jian*, and then *ge* is a classifier in this instance. But *shi* 'thing' can be understood as non-referential, and the whole

expression means ‘to have a discussion’. In this case, (4.58b) is an instance of the [V *ge* X] pattern. In (4.58c), *guilian* ‘(funny) face’ can be modified as in (4.59).

(4.59) 他 扮 了 个 顽皮的 鬼脸。  
*ta ban le ge wanpide guilian.*  
 he make ASP GE naughty ghost.face.

He made a naughty face/ he naughtily made a face.

The adjective can be a modifier to describe the feature of the face he made, or it can be regarded as a modifier to denote the manner of the face-making event. Then for the former, *ge* is a classifier and for the latter, *ge* is part of the [V *ge* X] pattern.

Thus the boundary between the [V *ge* X] pattern and the [V *ge<sub>cl</sub>* N] pattern is not always clear-cut. *Ge* in the instances above can be either grouped with the following noun or treated as a relatively independent element. The fuzzy boundary between the [V *ge* X] pattern and the [V *ge<sub>cl</sub>* N] pattern suggests that the specially used *ge* and the classifier *ge* are related.

Earlier in this chapter, [V *ge* X] and its [V *de* X] counterpart has been compared in terms of their aspectual reading. The only difference with these two patterns is the choice of *ge* and *de*. That is to say, *ge* is the key element to activate or license the endpoint reading and this function is related to the classifier use of *ge*. When *ge* is used as a general classifier, its basic function is to individualize entities denoted by its following nouns and to enable Chinese nouns to be count (Chierchia, 1998). To be more specific, *ge* as a classifier individualizes an instance of a nominal concept and the instance is an existing entity which is referential and can be quantified. In this sense, *ge* as a classifier is considered to form a bounded and concrete unit out of a mass nominal concept. With this basic semantic property, *ge* in the [V *ge* X] pattern can be interpreted as individualizing events from unbounded activities. Activities and states are atelic and unbounded and they can be considered as a mass concept in temporal scope (Langacker 1987). Take *chifan* ‘to eat’ as an example. The activity designated by this word does not have an endpoint either inherent or added, and the eating activity can potentially last forever, i.e. unbounded in the temporal scope. By analogy, a mass noun like water in spatial scope is also considered as unbounded and does not exist in individual units with physical boundary. As introduced in Chapter 1, Chinese nouns are all considered as mass nouns and classifiers help to individualize and singularize discrete entities. Similarly, *ge* in [V *ge* X] individualizes and singularizes discrete and concrete events

from unbounded activities. In the temporal domain, to individualize events can be construed as to set boundaries to the activities. And the boundaries are endpoints. When *ge* is a classifier, it picks out an instance of the type denoted by nouns; similarly, in the [V *ge* X] pattern, *ge* also foregrounds an instance event of the action type designated by the VP. Thus, these two types of *ge* (classifier and the one in [V *ge* X]) have the function of individualizing and foregrounding in spatial scope and temporal scope, respectively.

## 4.5 Conclusion

In this Chapter, the function of *ge* in the post-verbal position is studied with its collocations, and the most typical and salient features of the structure have been analyzed. *Ge* in the post-verbal position is able to collocate with nominal elements, such as NPs which are the collocational objects in idiomatic VPs and splittable V-O compounds, non-referential NPs, complex NPs (such as coordinated NPs, NP denoting an approximate temporal duration and frequency, and other quantified NPs) and nominalized NP. Post-verbal *ge* of the special functions can also be followed by non-nominal elements, such as adjectives, adjective phrases, Chinese four-character-idioms, small clauses and negated VPs. All these variants are generalized as [V *ge* X]. The [V *ge* X] pattern has unique semantic properties. The nominal element following *ge* in the [V *ge* N] type is non-referential and cannot be modified. The [V *ge* X] pattern as a whole designates events of telic and bounded aspectual meaning. All the events designated by the [V *ge* X] pattern are complete and cannot be interrupted. [V *ge* N] and [V *ge* Non-N] variations designate events in irrealis mood and can be actualized by aspectual marker *le*. The [V<sub>1</sub> *ge* Neg V<sub>2</sub>] variation designates events in realis mood and mainly in past tense. The syntactic features and semantic properties of the [V *ge* X] pattern are interacted and interdependent. So they have to be studied together when distinguishing the [V *ge* X] pattern from the [V *ge<sub>cl</sub>* N]. The classifier *ge* and the specially used *ge* in the [V *ge* X] are semantically related, so the boundary between the [V *ge* X] pattern the [V *ge<sub>cl</sub>* N] pattern is not clear-cut. The next chapter studies the link between the classifier *ge* and the special *ge* in the post-verbal position from a historical perspective and explores how [V *ge* X] pattern of the special meaning came into existence.

## Chapter 5 Historical Development of Post-verbal *Ge*

### 5.1 Introduction

The previous chapter describes the synchronic variants of the [V *ge* X] pattern. Their common semantic functions and corresponding syntactic properties suggest that *ge* in the [V *ge* X] pattern is no longer a classifier but an essential element which enables the telic and bounded aspectual reading of the event designated by the whole pattern. *Ge* in this pattern is semantically linked with its original function as a general classifier in terms of the individualization function. Zhang (2003) pointed that the development from classifier *ge* to post-verbal *ge* with special functions is a gradual historical process involving multiple stages. According to him, *ge* is a general classifier that is able to collocate with nouns denoting a wide range of entities; since *ge* as a classifier frequently co-occurs with the numeral *yi* ‘one’ and *yi* ‘one’ is often omitted, *ge* becomes more referential and less quantitative. Zhang (2003: 198) claimed *ge* at this point has a function similar to the indefinite article in some European languages. With this new function, *ge* becomes a marker of objects in Chinese and its collocational range is enlarged and finally extended to non-nominal structures. Zhang (2003) believed that *ge* had developed a function as a nominalizer at this stage. At the same time, the relationship between the nominalized elements following *ge* and the preceding verb starts to change as well. Zhang (2003) pointed that in many instances the nominalized elements are non-object complements of the preceding verb providing additional information of the action designated by the verb. Thus, *ge* becomes a marker of non-object complements. The changing path of post-verbal *ge* according to Zhang (2003) can be summarized as: general-classifier-> marker of indefinite NP -> object marker -> marker of non-object complement.

Mi (2009) studied changes in the use of *ge* from the 7<sup>th</sup> century to present in detail with the focus on its (nearly) complementary distribution with other classifiers. According to her, in the 7<sup>th</sup> century and early 8<sup>th</sup> century, *ge* has a wider range of collocations than specialized classifiers. *Ge* is found to collocate with nouns referring to not only concrete entities but also nouns denoting abstract concepts. Furthermore, *ge* is also found in other structures, including in the idiomatic VPs and preceding VPs in the post-verbal position while the other classifiers

are not. Since the 10<sup>th</sup> century, more instances are found in which *ge* is used preceding non-nominal words and even clauses. Mi (2009) claimed that in these instances although *ge* collocates with non-nominal structures, it is still a classifier and nominalizes its following elements. Despite rare, *ge* is found to substitute other specialized classifiers. Mi (2009) argued that the substitution is conditional: when the speakers want to emphasize the type of entities rather than the quantities, they tend to use classifier *ge*; when the speakers want to distinguish the entity from the others, they prefer to use the specialized classifiers. In addition, specialized classifiers in the post-verbal position cannot collocate with non-nominal words. Thus, Mi (2009) concluded that *ge* as a general classifier is able to collocate with nouns denoting a wide range of entities, substances and concepts but it cannot eventually replace other specialized classifiers. *Ge* and other specialized classifiers have (nearly) complementary distribution based on their appearance in particular syntactic structures and their function in discourse. In Mi (2009)'s research, the special use of *ge* in the post-verbal position is not the central topic but she provided valuable insights on the distribution of *ge* and other classifiers in different time periods.

Some other research also mentions the use of *ge* but the focus was mainly on *ge*'s collocational range changes as a classifier in different time periods. Wang (1994) especially focused on the origin and development of Chinese classifiers in general with the evidence from *Jiaguwen* 'Oracle Bone Script' which are introduced in section 2 below. Liu (1965) studied *ge* as one of the general classifiers before 7<sup>th</sup> century which was able to collocate with nouns denoting various kind of entities. Wang (1989) studied the types of nouns that collocate with *ge* around the 8<sup>th</sup> century and she noted that the use of *ge* as a classifier is greatly expanded. In the 8<sup>th</sup> century, *ge* is found to collocate with nouns denoting abstract concepts, and it becomes the only general classifier. Chen (2007) followed Zhang (2003)'s argument on the developing path of *ge* from a classifier to a non-object complement marker. She described the use of *ge* in different time periods and especially presented various syntactic structures in which *ge* is used. Despite different research targets, all these studies agree that *ge* as a general classifier appears in the written texts in about the 5<sup>th</sup> century BC and in about the 6<sup>th</sup> century AD since the Chinese classifier system is established, the collocational range of *ge* starts to expand. By the 8<sup>th</sup> century, *ge* replaces 枚 *mei*, which used to be a general classifier as well, becoming the only general classifier. After the 10<sup>th</sup> century AD, the number of instances in which *ge* was preceding non-nominal structures increased.

The previous diachronic studies on the development of post-verbal *ge* suggested that *ge* acquires its new function through a series of steps instead of an abrupt change. But some details of the changing process were overlooked, such as if the origin of *ge* has any impact on its functions; how the omission of the numeral *yi* ‘one’ affected the change of *ge*; if it is true that the development was a unidirectional process without any extra branches; if there are other branches, how they are related to the above-mentioned process?

This chapter is devoted to exploring the changes of post-verbal *ge* and presenting how the [V *ge* X] pattern with telic and bounded meaning emerged. As most researchers agreed that the first use of *ge* is found in about 3<sup>rd</sup> century BC and *ge* as a classifier undergoes significant changes in about Tang Dynasty (618-907), the following diachronic study starts from the 3<sup>rd</sup> century BC and discusses the origin of *ge* and its initial function. Then, the following section 5.3 focuses on the collocational change of *ge* and its semantic shift in the 7<sup>th</sup> to 10<sup>th</sup> century. The emergence of a new function of post-verbal *ge* after Tang Dynasty due to the omission of numeral *yi* ‘one’ is analyzed in section 5.4. Section 5.5 demonstrates the emergence of the [V *ge* X] pattern of telic and bounded meaning. Section 5.6 discusses the influence of the drop of numeral *yi* ‘one’ on the emergence of the [V *ge* X] pattern and section 5.7 is the conclusion.

The data in this section are mainly collected from the CCL corpus following the method introduced in Chapter 3, and some data are from other scholars’ research when necessary.

## **5.2 Origin: Classifier *Ge* and Its Early Use (Before 3<sup>rd</sup> century BC to 6<sup>th</sup> century AD)**

### **5.2.1 Early Use of Chinese Classifiers**

Before the 3<sup>rd</sup> century BC, there are no classifiers in the Chinese language. A numeral and a noun can be joined together denoting the number of the entities denoted by the noun, as shown (5.1).



(5.1)	乃	社	于	新邑,	牛	一,
	<i>nai</i>	<i>she</i>	<i>yu</i>	<i>xinyi</i> ,	<i>niu</i>	<i>yi</i> ,
	then	worship(gods)	at	xinyi,	cow	one,
	羊	一,	豚	一。		
	<i>yang</i>	<i>yi</i> ,	<i>tun</i>	<i>yi</i> .		
	sheep	one,	pig	one.		

Then (they) worship the gods at Xinyi with one cow, one sheep and one pig.

Since the 3<sup>rd</sup> century BC, some words, although not in large number, are found used in NPs with ‘classifier-like’ function in written literature<sup>12</sup>. According to Teng (2006) and Wang (1994), the most commonly used ones include 个 *ge* (for humans, arrows, bamboo), 领 *ling* (for coats, armors), 篇 *pian* (for essay, book), 匹 *pi* (for horse, cow), 辆 *liang* (for vehicles), 介 *jie* (for humans), 编 *bian* (for villas), 枚 *mei* (for general objects), 圪 *lie* (for meat), 廷 *ting* (for dry meat), 本 *ben* (for trees) and 张 *zhang* (for curtains), etc.. These words are all found in the literature around the 3<sup>rd</sup> century BC collocated with nouns denoting concrete entities and substance. The main reason for labelling these words as ‘classifier-like’ words, instead of ‘classifiers’, is that compared with the typical classifiers in modern Mandarin Chinese, they are used for quantifying rather than categorizing (Wang 1994). In modern Chinese, as introduced in Chapter 1, one important function of classifiers in general is to categorize entities denoted by nouns according to their salient and inherited features (Allan 1977, Tai 1994). For example, classifier 条 *tiao* is normally used with nouns denoting long and thin entities. The ‘classifier-like’ words before 4<sup>th</sup> century BC do not have such categorizing meaning, instead, they are more like nouns referring to a portion or a singular individual instance of the entities denoted by their collocational nouns. Wang (1994) examined the origin of Chinese classifiers from *Jiaguwen* (Oracle Bone Script) and *Jinwen* (Metal Script) dating back to the 13<sup>th</sup> century BC, and she concluded that the initial function of these ‘classifier-like’ words is to distinguish ‘single and plural measure terms’ (Wang 1994:100). For example, in *Jiaguwen*, 朋 *peng* was used to denote two to ten shells. In the classic literature, *Zuozhuan*, some words are also found used to denote groups of people of different numbers, like 行 *hang* for 25 people, 卒 *zu* for 100 people. Thus, if a singular meaning of a

<sup>12</sup> Here in this research the words of measurement like *cun* ‘inch’, *sheng* ‘liter’, *dan* ‘stone’ are not considered.

noun needed to be expressed, an overt ‘classifier-like’ word is required. If there is no word to denote a clear singular number, some ambiguity may incur. Wang (1994: 103) gave an example as in (5.2).

- (5.2) 选        精        兵        三十        弩。  
*xuan        jing        bing        sanshi        nu.*  
 select    excellent    soldier    thirty    crossbow.

Select thirty strong soldiers/ Select 10 -15 strong soldiers.

In (5.2), the use of word *nu* ‘crossbow’ causes the ambiguity in understanding this expression. It can be understood as to select thirty soldiers if each soldier carries one crossbow, and this sentence can also be interpreted to select 10 to 15 soldiers since at that time soldiers were typically equipped with maximum two to three crossbows each. In other words, *nu* ‘crossbow’ can be interpreted as a singular marker or a plural measure unit. To avoid this kind of ambiguity in numbers, a group of words are necessary to mark the singular number in contrast with the existing words denoting quantity. Wang (1994) called these ‘classifier-like’ words at that time proto-classifiers. To avoid confusion, in this thesis, I also borrow this term to refer to these ‘classifier-like’ words before 4<sup>th</sup> century BC. This argument is still consistent with the basic function of classifiers as individualization, since the original semantic motivation for the emergence of these proto-classifiers is to contrast the ‘individual measure’ with the ‘group measure’. As listed above, although the proto-classifiers showed some collocational preference, it cannot be seen as conclusive evidence to prove that they had the categorizing function, for the following two reasons. First, the number of the proto-classifiers is very small and there are still many instances in which nouns are directly joined with numerals without proto-classifiers. Second, the proto-classifiers are more like nouns than classifiers. They refer to a part of the entities and therefore denote singular number by metonymy. For example (5.3), the proto-classifier *ling* is used with numerals to indicate the number of clothes and *ling* as a noun refers to collars. *Yi* ‘clothes’ denotes a group of entities and the number is unspecified. *Ling* ‘collar’ co-referring with *yi* ‘clothes’ by metonymy denotes a part of the group. That is to say, the collocational preference between proto-classifiers and nouns is motivated by co-referring instead of categorizing. So proto-classifiers do not have categorizing function as classifiers.

- (5.3) 衣        三        领  
*yi        san       ling*  
 clothes three collar.

Three pieces of clothes.

Another feature of the proto-classifiers lies in their syntactic structure. In modern Chinese, classifiers are used between numerals and nouns while proto-classifiers combining with numerals follow nouns. That is to say, the word order for a quantified NP at that time is Noun+ Num+ Proto-classifier (PCL for short).

- (5.4) a. 马        四        匹。  
*ma        si        pi*  
 horse four pi(PCL).  
 Four horses
- b. 衣        衾        三        领。  
*yi        qin       san       ling*  
 clothes quilts three ling(PCL)

Three sets of clothes and quilts

Teng (2006) examined twelve books of classic literature before the 3<sup>rd</sup> century and only four instances are found using Num+ PCL+ Noun word order, whose surface structure is similar to the modern classifier phrases.

- (5.5) a. 如    有    一    介    臣  
*ru    you    yi    jie    chen*  
 as.if have one jie office  
 As if there is one officer...
- b. 一    介    嫡女                      一    介    嫡男  
*yi    jie    dinv                      yi    jie    dinan*  
 one PCL first.wife's.daughter one PCL first.wife's.son  
 a daughter of the first wife...a son of the first wife...
- c. 不    使    一    个    行李        告    于    寡君  
*bu    shi    yi    ge    xingli        gao    yu    guajun...*  
 not send one PCL messenger tell to king  
 (someone) doesn't send any messenger to tell me about it...

- d. 不      用      一      领      甲,      不      苦      一  
*bu      yong      yi      ling      jia,      bu      ku      yi*  
 not      use      one PCL armor, not hurt one  
 (士) 民  
*(shi)      min.*  
 (PCL) person.

Did not use any, did not make a single person suffer.

The numerals in (5.5) are all numeral *yi* ‘one’ and three of the four instances contains the word 介 *jie*/个 *ge*. *Jie* and *ge* at this time are commonly believed to be interchangeable when collocating with nouns referring to humans (Wang, 1994; You 1985; Teng 2006; Wang 1964). In other words, *ge* is the alternative of *jie* in NPs referring humans. In some versions of *Zhanguoce*, there is no *shi* in (5.5d) but since it is impossible to determine which is the original version I use brackets to mark *shi*. You (1985) claimed that *ge* is a misuse of the word *jie*, which has an additional meaning of ‘insignificant, not important’. In addition, in (5.5d), the two coordinated clauses are supposed to be in the same structure, and without *shi*, the function of *ling* in the first clause becomes rather unclear. So Wang (1994) claimed that in (5.5), *ge*, *jie*, *ling* and *shi* are PCLs used in an atypical word order structure. Even though *ge*, *jie*, *ling* and *shi* in (5.5) are treated as PCLs, instances in (5.5) denote different meanings from those in (5.3) and (5.4). (5.5c) and (5.5d) are in negated form and (5.5a) is a conditional sentence. Based on the context, (5.5b) is used to refer to the speaker’s own son and daughter in a modest way. So it can be inferred from the context that all instances in (5.5) emphasize a minimum existence of the entity denoted by the noun while instances in (5.3) and (5.4) are neutral expressions focusing on the quantification information of the entities denoted by the nouns. In other words, the Num+ PCL +Noun word order is used in a particular context with emphasis on the minimum quantity and Noun+ Num+PCL is still the major structure for denoting quantity.

To sum up, before the 3<sup>rd</sup> century B.C., nouns were able to collocate with numerals directly without classifiers. Proto-classifiers were used as predecessors of classifiers when it is necessary to distinguish single and plural measure terms. PCLs still have strong nominal meanings and typically used with numerals following nouns.

### 5.2.2 The Origin and Early Use of Ge

The Chinese classifier *ge* is one of the earliest proto-classifiers. Historically, according to the *Kangxi Dictionary*<sup>13</sup>, *ge* has three forms ‘个’, ‘個’, ‘箇’ with similar pronunciation in different time periods. Since the 3<sup>rd</sup> century A.D., these three forms are considered as different forms for one word, *ge*, as a classifier (Wang 1994, Mi 2009). 个, which is used in modern Mandarin Chinese, is actually the earliest form, found in the literature before the Qin Dynasty (221BC- 207BC). In *Guangyun*<sup>14</sup> (1008), the phonological feature of 个 is noted as *gu3-he4-fan*. *Fan* is a pronunciation instruction, which means the pronunciation of the character is represented by two other characters. *Gu3-he4-fan* a combination of the consonant of the first word (here it is [k]) and the rhyme and tone of the second word (here it is [ɤ4]). By the *fan* method, the pronunciation of 个 at that time is [k ɤ4]. *Shuowenjiezi* ‘Explaining the Meaning of Words’ (2<sup>nd</sup> century AD) explains 个 as half bamboo because the character 个 is like half of the character 竹 *zhu* ‘bamboo’ in terms of pictograms. *Ge* is widely used to mark the singular number of entity denoted by nouns (Wang, 1994) and gradually becomes one of the most used PCLs before the 3<sup>rd</sup> century. 箇, in *Shuowenjiezi* (2<sup>nd</sup> century AD), means the trunk of bamboo, with the pronunciation as *gu3-he4-qie*. The *qie* method is slightly different from *fan* according to the complex rules in ancient Chinese. 箇 following *gu3-he4-qie*, sounds like [k’ ɤ4]. 箇, which appears no later than the first century BC, is a classifier especially for counting bamboo. Since 箇 and 个 were both used at the beginning to count bamboo, and they have similar pronunciation, these two characters are used identically since 2<sup>nd</sup> century A.D. (Wang 1994). 個 comes into use around the 3<sup>rd</sup> century A.D. Wang (1994:116) quoted Zhengxuan’s annotation to *Liji*: ‘個 *ge* is 枚 *mei*, now folk customarily call *mei* as *ge*’. *Mei*, as a general classifier before the 6<sup>th</sup> century, originates from a counting unit which is used to mark quantity. According to the *Kangxi Dictionary*, the character 個 is an informal form of 箇 and 个 created in around the 3<sup>rd</sup> century. It is simply a replacement form for 个 with no semantic difference. Since these three forms are used interchangeably after the 3<sup>rd</sup> century, the detailed distinction between them is not the central issue in this research. They are treated as one linguistic sign and are noted as *ge*.

<sup>13</sup> *Kangxi Dictionary* was the standard Chinese dictionary in the 18<sup>th</sup> century, compiled in 1710.

<sup>14</sup> *Guangyun* is a Chinese rhyme dictionary compiled in around 1008.

As to the origin of *ge*, Wang (1994) offered an explanation based on her careful study on *Jiaguwen* combining with other scholars' research. She proposed that 个 *ge* is derived from a word 𠂔 *kai* in *Jiaguwen*. *Kai* is created from a word 朋 *peng*, which means a certain amount of shells. *Peng*'s written form in *Jiaguwen* is 𠂔 and in order to express a singular meaning of shells, 𠂔 *kai* is created since its character image looks like half of 𠂔 *peng*. Thus, *kai* is used to denote individual and singular meaning of nouns before the 10<sup>th</sup> century B.C. to contrast with the plural meaning denoted by *peng*. Based on this function, *kai* is the earliest proto-classifier. Later on, due to the need to express singular meaning with other nominal concepts, *kai* is used with other nouns in addition to nouns referring to shells. Thus, the collocational range of *kai* was enlarged. *Ge*, according to Wang (1994), is a later variation of *kai* since they have phonological, semantic and pictographic similarities. Thus, in this sense, *ge* is a word created for the purpose of denoting singular and individual meaning.

*Ge* as a proto-classifier is first found in literature prior to the 3<sup>rd</sup> century and it is found collocating with nouns denoting arrows, animals and humans. In addition to the example given in (5.5) above, here are some other instances of the early use of *ge*.

- (5.6) a. ...一 个 负 矢, 将 百 群  
           ...*yi ge fu shi, jiang bai qun*  
           one PCL carry arrow, will hundred group  
           皆 奔。  
           *jie ben.*  
           all run

One (of the beasts) is hurt by an arrow, then all other beasts will become crazy.

- b. 鹿 皮 四 个。  
    *lu pi si ge*  
    deer skin four PCL

Four pieces of deer skin.

- c. ...又 弱 一 个 焉...  
    ...*you ruo yi ge yan...*  
    ...again die one PCL there...

Another (son) died in the family.

- d. 俎      释      三      个。  
      *zu*      *shi*      *san*      *ge*  
      plate   rib   three   PCL  
      Three pieces of ribs in a plate.

- e. 负      矢      五十   个。  
      *fu*      *shi*      *wushi*   *ge*  
      carry   arrow   fifty   PCL  
      (one) carries fifty arrows

In all these instances, *ge* is combined with numerals but this combination does not have a fixed word order with nouns. Among these five examples in (5.6), nouns precede the Num+ *ge* combination in (b), (d) and (e), and in (a) and (c), there is no noun either directly preceding or following Num+ *ge*. The NPs occurring with Num+ *ge* in (c) and (e) are in a post-verbal position as the objects of the verb. As to the collocational features, *ge* can collocate with nouns denoting animals (a), objects (b, d, e), and people (c). Based on the data collected from the CCL corpus before the 3<sup>rd</sup> century B.C., all the examples use *ge* with numerals. According to *Shisanjing Zhushu* ‘Annotations to the thirteen classics’ (14<sup>th</sup> century), *ge* in these instances still retains a meaning of foregrounding an individual against a group or mass. For example, in (a), in the context, *yige* here refers to one big animal in contrast with the following *baiqun* ‘hundred’; (b) does not simply mean four pieces of deer skin, but implies that these pieces are from one whole piece of skin; *yige* in (c) refers to one of the sons and also expresses a part-whole relationship with the group; *sange* ‘three pieces’ in (d) means three parts of one rib instead of three independent pieces. (e) is slightly different since it does not have obvious part-whole relationship to a group or a larger unit. But *ge* in this instance is an unambiguous singular PCL compared with *nu* ‘crossbow’ in (5.2).

Before the 2<sup>nd</sup> century A.D., *ge* does not show much difference from other PCLs because no PCLs have categorizing function yet. *Ge*, however, unlike the other PCLs, does not have a clear nominal origin. For example, the PCLs 领 *ling* means ‘collar’, a part of a coat. As another widely used PCL, *mei* also collocates with nouns denoting entities of different categories but *mei* has a nominal origin as a small branch of a tree. People use these small branches as counting units and then *mei* becomes a PCL to indicate an individual unit (Wang, 1994). Since *ge* does not have a clear nominal origin, it does not indicate additional information to the nouns it collocates with and it does not show a collocational preference.

This semantic property of *ge* makes it a potential general classifier with a nearly complementary distribution with other specialized classifiers.

From the 2<sup>nd</sup> to the 6<sup>th</sup> centuries, the number of proto classifiers increases rapidly, from less than 20 around 3<sup>rd</sup> century BC to more than 110 (Wang, 1994: 99). Despite the increased number of proto classifiers, the properties of proto classifiers, both syntactic and semantic, did not show obvious changes. The word order of nouns and the [Num+ PCL] combination is still relatively flexible (Lin 2006) and the categorizing function has not yet developed overtly. There is no significant feature change with [Num +*ge*] in the post-verbal position, but some instances are found in the CCL corpus where *ge* is used with nouns of some abstract temporal concepts, such as months and seasons.

(5.7) a. 两 个 月 秋 耕。

*liang ge yue qiugeng*  
two PCL month autumn.plow.

To plow in the two months of autumn.

b. 夏 及 秋 冬 三 个 月

*xia ji qiu dong san ge yue*  
summer and autumn winter three PCL month  
防 此 为 忌。  
*fang ci wei ji.*  
avoid this as bad.

To avoid this in summer, autumn and winter these three seasons.

c. 计 正月, 二月 两 个 月, 又

*ji zhengyue, eryue liang ge yue, you*  
take January, February two PCL month, again  
车 一 遍。  
*che yi bian.*  
plow one time.

After January and February two months, to plough again.

A month, although countable, is a concept about time, which is abstract and not concrete. The PCLs as listed previously all collocate with nouns denoting concrete entities. Although the number of PCLs increases significantly, there is no new proto classifier for counting time units. *Mei* which is considered as another general classifier at that time was not found in the corpus collocating with nouns denoting time. Thus, the type of nouns collocating with *ge* has



been enlarged to an abstract concept like time. Moreover, unlike the instances in (5.6), when collocating with time, the [Num+*ge*] combination precedes the noun denoting the month without exception and the meaning of this expression is slightly different from its modern use. The [Num+*ge*+ N(time)] structure co-refer to the concepts denoted by the neighbouring NP. (5.6a) can be interpreted as ‘the autumn ploughing lasting two months’ or ‘the two months of autumn ploughing’; in (5.6b) and (5.6c), the nouns indicating the specific time have been listed by conjunctions, and [Num+*ge*+ N(time)] functions as the appositive.

To sum up, from the 3<sup>rd</sup> century BC to the 6<sup>th</sup> century AD, the classifier system in the Chinese language has not yet been established. There are some words used to distinguish singular units from plural measures. These words, i.e. proto-classifiers are the ancestors of classifiers. *Ge* as one of the earliest PCLs mainly functions to individualize and mark singular concrete units. It was found to collocate with nouns denoting food, objects, animals and humans. Later in the 5<sup>th</sup> to 6<sup>th</sup> century, it was found to collocate with nouns denoting months and seasons, which are more abstract concepts. In all instances of this time period, the numeral before *ge* is obligatory and the word order of a numeral and *ge* is fixed; however, the nouns they collocate with can appear before, after them or even be omitted. The properties of *ge* as a PCL before 6<sup>th</sup> century can be represented as follow:

Syntactic structure: [Noun+ Num+ *ge*] / [Num+ *ge* + Noun]/[Num+ *ge*]

Collocational preference: Nouns denoting food, objects, animals, humans and time

Semantic function: marking singular unit, foregrounding individuals against the whole.

### **5.3 Emergence of a New Pattern: Early [V (num) *ge* X] in the 6<sup>th</sup> to the 10<sup>th</sup> Century**

Since the 6<sup>th</sup> century, more instances are found in which nouns co-occur with PCLs and the types of PCLs have increased as well. More instances of the [[Num+PCL]+Noun] order are found than those of [Noun+[Num+PCL]] order (Wang 1989, Lin 2006, Mi 2009). PCLs from the 6<sup>th</sup> century show a clear preference of collocating with nouns denoting entities of different categories. For example, a group of PCLs that tend to collocate with nouns denoting long entities has formed (Wang 1994). The prototypical word in this group is 条 *tiao*, which is

found earliest in the corpus material and can collocate with nouns denoting various entities. The other members of this group include 枝 *zhi* (for branches), 挺 *ting* (for straight branches), 根 *gen* (for wooden stems), 株 *zhu* (for side roots), 本 *ben* (for underground parts of trees), 管 *guan* (for flutes/pens), 棵 *ke* (for broken trees), 丝 *si* (for silk), 缕 *lü* (for threads), 茎 *jing* (for grass plant stems) etc.. All these words with strong categorizing function are found collocating with nouns denoting various kinds of long entities (Wang, 1994). The function shifting and word order changing indicate that PCLs have developed into real classifiers. Croft (1994) suggests that the individualizing function of Chinese classifiers helps to ‘extract ... distinguished, that is, discrete occurrences’ of entities denoted by nouns. Paris (1981: 69) also refers classifiers as ‘a mark of individuation, of singularization’ (Chen & Sybesma, 1999: 517). Thus, individualizing is still the basic function of Chinese classifiers.

At the same time, the usage of *ge* is extended as well and *ge* is able to collocate with nouns denoting more varied kinds of entities. *Ge* is found to be used with other nouns which previously had their specialized classifiers. (5.8) lists some examples in which *ge* is used with nouns of animals, food, and plants.

- (5.8) a. ...即                变为    三    个    白鹤。  
           ...*ji*                *bianwei* *san*    *ge*    *baihe*.  
           ...immediately change three GE<sub>cl</sub> crane.  
           (they) immediately transform into three cranes.
- b. 一    个    煎饼    成,    一    韵    粲然。  
     *Yi*    *ge*    *jianbing*    *cheng*,    *yi*    *yun*    *canran*.  
     one    GE<sub>cl</sub>    pancake    ready,    one    poem    ready.  
     (He) can write a nice poem within the time of making a  
     pancake.
- c. ...或    以    竹            一    个    植    室外。  
     ...*huo*    *yi*    *zhu*            *yi*    *ge*    *zhi*    *shiwai*  
     ...or    with    bamboo    one    GE<sub>cl</sub>    grow    outdoor.  
     Or (they) grow a bamboo outdoor.

In (5.8a), cranes are a type of birds and in the 7<sup>th</sup> century, nouns of birds collocate often with a specialized classifier 只 *zhi*. The use of classifier *zhi* for birds is also recorded in much literature even before the 7<sup>th</sup> century, as in example (5.9), so the use of *ge* with nouns denoting birds is not a routine.

- (5.9) 淮南 献 鹤 数 只。  
*huainan xian he shu zhi.*  
 huainan give crane several CL.

Huainan gives several cranes as gift.

Similarly, in (5.8b), *ge* is used with a noun denoting food, i.e. a pancake. Pancakes at that time also have a specialized classifier 番 *fan*, but *fan* is replaced by *ge*. In (5.8c), *ge* is used with 竹 *zhu* ‘bamboo’. Interestingly, *ge*, as mentioned above, has a bamboo related origin, and by the 7<sup>th</sup> century, the noun 竹 *zhu* ‘bamboo’ is rarely used with *ge* but with classifier 杆 *gan* or 枝 *zhi* instead (Wang 1989). One possible explanation is that on the one hand, *ge* has developed into a general classifier which can collocate with nouns denoting various types of entities, regardless of shape or size. On the other hand, as listed above, the specialized classifiers have developed rapidly and the group of classifiers for long, thin entities has many detailed subcategories which can better categorize the entities denoted by the modified nouns. Thus, for the sake of accuracy, *ge* cannot compete with these specialized classifiers.

Furthermore, in this time period, *ge* is commonly used for time units and other abstract concepts. *Ge* is used with nouns denoting language units, like words or sentences (5.10a) and ideas or opinions (5.10b).

- (5.10) a. 举 得 一 百 个 话,  
*ju de yi bai ge hua*  
 make ASP one hundred GE<sub>cl</sub> utterance  
 不如 拣 得 一 个 话  
*buru jian de yi ge hua*  
 no.better than pick ASP one GE<sub>cl</sub> utterance

Instead of making one hundred utterances, it is better to pick one (useful).

- b. 某甲 有 一 个 拙见。  
*mojia you yi ge zhuojian*  
 I have one GE<sub>cl</sub> idea

I have an idea.

Language units like words or utterances can be concrete in written forms. Ideas or opinions are more abstract concepts which come from the human mind, though countable. There are

instances found in this period that *ge* is used with even more abstract mass nouns, like ‘kindness’ in *yige shanhui* ‘some kindness’. Lin (2006) and Mi (2009) in their research mentioned that since the 6<sup>th</sup> century, there is a growing number of nouns denoting abstract concepts entering the Chinese language, both discrete and mass, and before the 6<sup>th</sup> century there are no specialized classifiers to categorize these nouns. *Ge*, due to its original function as a counting unit and lack of lexical meaning, becomes the best candidate in the classifier system to fill this gap.

Around the 8<sup>th</sup> century, more and more instances of the [*ge*+ Noun] pattern are found in the historical data in which no numeral precedes *ge*. Lü (1984) explored the drop of the numeral before *ge* and other classifiers in detail. According to him, this pattern mainly occurs in post-verbal position. Wang (1989) also emphasized that the omission of the numeral before *ge* is more common in NPs functioning as objects. Thus, in order to be closely related to the task of this research, the following discussion will mainly focus on *ge* without a numeral in an NP functioning as a verbal object. Other instances in which the numeral before *ge* is kept are analyzed when necessary.

- (5.11) a. 东 都 添 个 狂 宾客。  
*dong du tian ge kuang bingke.*  
 east city add GE<sub>cl</sub> crazy guest  
 A crazy guest comes to the east of the city.
- b. 昨日 设 个 斋。  
*zuori she ge zhai*  
 yesterday hold GE<sub>cl</sub> dinner  
 Yesterday (someone) treated people a dinner.
- c. 总 未 见 人 持 个 消息  
*zong wei jian ren chi ge xiaoxi*  
 always no see people bring GE<sub>cl</sub> message  
 来。  
*lai.*  
 come  
 No one brings any news to me.

In all the three instances in (5.11), the numerals before post-verbal *ge* are all absent. Although the numeral is not realized, the singular meaning of the NPs still can be inferred. Furthermore,

the omission of numeral *yi* ‘one’ before *ge* is common in the 7<sup>th</sup> century but this phenomenon rarely occurs with other classifiers at that time. Chen (2007) argued that part of the semantic properties of *ge* and numeral *yi* ‘one’ overlap because both of them denote the singular meaning. However, without numeral *yi* ‘one’, the quantity meaning of the NPs in (5.11) is weakened.

When the numeral *yi* ‘one’ is omitted, *ge* shows more freedom to collocate with nouns which have specialized classifiers. Consider the examples in (5.12).

- (5.12) a. 下 有 一 条 路。  
*xia you yi tiao lu.*  
 below have one CL road  
 There is a road below.
- b. 乞 和 尚 指 示 个 入 路。  
*qi heshang zhishi ge rulu.*  
 beg master show GE<sub>cl</sub> enter.road.  
 Master, please show me a way to enter.
- c. ...做 得 一 领 布 衫。  
*...zuo de yi ling bushan*  
 ...make ASP one CL coat  
 I have had a coat made for me.
- d. 着 个 绯 衫 倚 势 行。  
*zhou ge feishan yishi xing*  
 wear GE<sub>cl</sub> red.coat along.road walk.  
 (someone) walks along the road wearing a red coat.

*Lu* ‘road’ normally collocates with the classifier *tiao* which is used to categorize long entities as in (5.12a) but in (b), the word *lu* ‘road’ collocates with *ge*. Similarly, the classifier *ling* in (c) is a specialized classifier for nouns referring to coats but in (d) *ge* is used to replace *ling*. If the numeral is not omitted, there is no evidence showing that *lu* ‘road’ and *shan* ‘coat’ can be used with *ge* at that time. There is also some semantic differences when they are preceded by *ge* alone in the post verb position. In (b), *lu* ‘road’ does not refer to the concrete path that people can walk on but refers to a metaphorical path, i.e. a method to acquire knowledge. In (d), although *shan* ‘coat’ here refers to clothes, wearing a red coat in (d) indicates a background information for the walking activity. The noun *feishan* ‘red coat’ is not

mentioned again in the following context. Unlike (d), in (c) making a coat is new information introduced and the following story starts to describe the newly made coat. In other word, *feishan* ‘red coat’ in (d) has low thematic importance. Thus, the comparison between these two pairs of examples in (5.12) indicates that the concepts denoted by the nouns following *ge* without numeral are less concrete. However, this semantic difference is less obvious in sentences with *you* ‘there be’ and *shi* ‘be’ when *ge* replaces other *yi*+ specialized classifier, since these sentence structures themselves indicate existence and referentiality.

In the late 9<sup>th</sup> century and the 10<sup>th</sup> century, the types of elements following the ‘bare’ *ge* in the post-verbal position are further expanding, including either nominal (5.13) (5.14) or less nominal (5.15) structures.

- (5.13) ...且 说 个 超 佛 越  
 ...*qie* *shuo* *ge* *chao* *fo* *yue*  
 ...now say GE<sub>cl</sub> surpass Buddha surpass  
 祖 的 道理。  
*zu* *de* *daoli*  
 ancestor ASSOC argument  
 ...can (you) tell an argument which can surpass the ones  
 from the Buddha.

- (5.14) ...弃 个 耳 还 聋  
 ...*Qi* *ge* *er* *huan* *long*  
 ...drop GE ear still deaf  
 Lose an ear and become deaf.

- (5.15) ...尽 学 个 驰求走作。  
 ...*jin* *xue* *ge* *chiquzouzuo*  
 ...all learn GE run.after

You only know to go to different places to learn the knowledge (about Buddhist)

In (5.13) and (5.14), *ge* is followed by nominal structures, although more complex, but in (5.15) the structure after *ge* is not typically nominal. In (5.13), *ge* is followed by an association construction with *de*, which features as a relative clause. In (5.14), *ge* in the post-verbal position marks the existence of the entity denoted by the following noun, but the quantitative meaning is weakened. The focus of the expression is the result of losing ears, i.e. being deaf, but the number of ears is not emphasized. If numeral *yi* ‘one’ is added back to (5.14), the quantifying meaning is strengthened and the focus of the expression is changed.

This suggests that the main function of *ge* in (5.14) is to mark the referentiality of the following nouns. In (5.15), *ge* is followed by a prototypical VP which means ‘running around to look for the knowledge’ but this expression in the object position indicates the content of the study activity. In this sense, it is nominalized and is an argument of the verb *xue* ‘study’. (5.15) implies a negative attitude towards this learning outcome and the adverb *jin* ‘just/only’ further emphasizes the downtoning meaning that ‘running around to learn (instead of settling down to study)’ is the only achievement of the learning activity. *Ge* as a classifier functions over nominal elements but with nominalized elements the classifier *ge* does not work exactly the same. Based on the analysis in Chapter 2, the referent of the nominalized VP in (5.15) is hard to describe, more abstract but less referential than those of typical NPs. The collocational range of *ge* in the post-verbal position is extended to more types of nominal structures. The types of elements following *ge* can also be nominalized VPs whose referent is not clear. The existence of (5.15) indicates that post-verbal *ge* starts to collocate with less referential nominals and its semantic property is changing.

To sum up, in the 7<sup>th</sup> century, *ge* with a numeral is able to collocate with more kinds of nouns, including nouns denoting not only animals, plants, people, concrete entities but also countable abstract concepts like time, language unit, and opinions. In addition, *ge* is also found to count entities which have specialized classifiers. In the late 7<sup>th</sup> century, more instances are found in which the classifier *ge* in the post-verbal position does not co-occur with numerals. The omitted numeral is restricted to *yi* ‘one’. Since the numeral omission, the bare *ge* is found preceding nouns which normally do not collocate with [Num +*ge*]. In addition, the nouns following the bare *ge* in the post-verbal position are not the focus in the discourse anymore or mentioned in the following context. Furthermore, *ge* is also found being used to collocate with complex noun phrases and nominalized elements but such instances exist in quite a small number in the early 10<sup>th</sup> century. The referent of the nominalized elements following post-verbal *ge* is abstract and less referential. The existence of this kind of examples indicates that the semantic property of *ge* in the post-verbal position is changing.

## 5.4 Ge and the New [V ge X] Pattern between the 10<sup>th</sup> Century and the 13<sup>th</sup> Century

Since the drop of numeral *yi* ‘one’, the collocational range of *ge* has been enlarged and non-nominal elements are found following *ge* in the post-verbal position. Therefore, a new [V *ge* X] pattern of special function emerges in the late of the 10<sup>th</sup> century. In the time span between the 10<sup>th</sup> and the 13<sup>th</sup> century, many instances of this new pattern are found in which *ge* without numeral *yi* ‘one’ precedes non-referential nouns or even non-nominal elements. Furthermore, before the 13<sup>th</sup> century, *ge* in the post-verbal position also demonstrates some new features. However, few instances of the [V *ge* X] pattern with telic and bounded aspectual meaning are found before the 13<sup>th</sup> century.

### 5.4.1 Post-verbal Ge in the 11<sup>th</sup> and 12<sup>th</sup> Century

The data from the 11<sup>th</sup> and 12<sup>th</sup> century found in the CCL corpus are mainly from the literature of Confucianism and Buddhism. They are in the form of records of important masters’ speeches or conversations as well as lecture notes, so they can somehow present the traits of spoken language used at that time period. In most instances found in the 10<sup>th</sup> and 11<sup>th</sup> century, post-verbal *ge* is followed by an NP, as in the case with normal classifiers. When there is no numeral preceding *ge*, the number meaning of following nouns is weakened. According to the data collected from the CCL corpus, most of the nouns following the bare *ge* in the post-verbal position denote abstract concepts as illustrated in (5.16).

- (5.16) 若 要 大 事 辨,            识            取  
      *ruo yao da shi bian,*        *shi*            *qu*  
      if want big thing understand,    recognize    ASP  
      个            泡幻,            作麽生。  
      *ge*            *paohuan,*        *zuomosheng.*  
      GE            bubble,            why.  
  
      If (you) want to understand the world and life, why try to  
      pursue something unrealistic.’

In (5.16), *huanpao* is referring to unrealistic and unreal illusions, and in this context, *ge* without a numeral does not indicate any quantification meaning. The following expression *zuomosheng* ‘why’ comments on the whole action of ‘trying to understand or pursue unrealistic illusions’. Thus, in this instance, the focus is the action instead of the noun



following *ge*. The literal meaning of *huanpao* is ‘bubble’ but it is understood metaphorically as ‘illusion’ in this instance. Bubbles can be countable and concrete but the metaphorical meaning does not refer to any specific entity but a type of abstract concept. So *huanpao* ‘illusion’ in this instance denotes less referential meaning in the form of countable nouns. It indicates the constraint of referentiality imposed by *ge* is less strong.

There are also instances like (5.17), in which *ge* is followed by a noun and preceded by a change-of-state verb.

- (5.17) a. 只 成 得 个 野狐精 业。  
*zhi cheng de ge yehujing ye.*  
 just accomplish ASP GE amateur karma.  
 Just accomplished a karma as an amateur.
- b. 知 陷 在 死水, 弄  
*zhi xian zai sishui, nong*  
 know stuck in dead.water, end.up.with  
 个 无 尾 胡孙。  
*ge wu wei husun.*  
 GE no tail monkey.  
 Now stuck in a problem without any support, ending up  
 like a joke.

In (5.17), the verbs do not denote any concrete action but indicate a change of states, like accomplishing and ending up with certain outcomes which denoted by the nouns following *ge*. The noun following the bare *ge* in (5.17) is used to refer to an instance of a type of situation. Thus, *ge* in (5.17) functions as a classifier to individualize an instance denoted by the noun. All these instances in (5.16) and (5.17) denote bounded and telic event meaning, but this aspectual meaning is mainly indicated by the preceding verbs. Especially, both *qu* in *shiqu* ‘understand’ in (5.16) and *de* in *chengde* ‘accomplish’ in (5.17a) indicate a meaning of acquiring and when combining with other verbs they convey the accomplishing meaning of the event designated by the main verbs. In (5.17b), although there is no such a morpheme of aspectual function, the verb *nong* ‘make’ itself indicates a meaning of achievement. (5.16) and (5.17) suggest that the less referential nouns with *ge* tend to appear in the context of accomplishment.

In the 11<sup>th</sup> century, *ge* was found following verbs of communication, such as *yan* ‘say’, *dao* ‘say’ and preceding clause of indirect quotations, as illustrated in (5.18).

- (5.18) a. (妙女) 忽 言 个 要 暂  
 (*miaonü*) *hu* *yan* *ge* *yao* *zan*  
 (Miaonü) suddenly say GE will temporarily  
 去, 请 婢凤楼 代 绣。  
*qu*, *qing* *bifenglou* *dai* *xiu*.  
 leave, ask Bifenglou replace stitch.  
 (Miaonü) suddenly said she would be away for a while  
 and she asked Bifenglou to replace her.
- b. (相骨人) 且 道 个 瘦长 杜  
 (*xiangguren*) *qie* *dao* *ge* *shouchang* *du*  
 (Fortune.teller) just said GE slim.tall Du  
 秀才 位极人臣。  
*xiuca* *weijirenchen*  
 scholar rank.important.officer  
 (The fortune teller) just said that a slim and tall scholar  
 called Mr Du would become an important officer.

In these two instances, *ge* is following *yan* ‘say’ and *dao* ‘say’ and the subjects in these two instances are both humans. The clauses of indirect quotation following *ge*, do not present a piece of utterance in a communication but a summary of the communication. The indirect quotations after *ge* are complements of the preceding verbs of communication and if *ge* in between is omitted, the expressions are still grammatical as in (5.19), despite subtle meaning differences.

- (5.19) (使者) 言 太乙 请 少 君。  
 (*shizhe*) *yan* *Taiyi* *qing* *shao* *jun*.  
 (Messenger) said Taiyi invited Junior Lord.  
 (Messenger) said Master Taiyi invited Junior Lord.

In (5.18), these instances, here represented as [V<sub>say</sub> *ge* InQ], the indirect quotations are foregrounded and the expressions indicate the speakers’ subjective attitude towards the content of the indirect quotation. In (5.18a), Miaonü said she would be away for a while and needed some help from other people. By using the [V<sub>say</sub> *ge* InQ] pattern, the speaker expresses a surprised feeling about the incidence. The adverb *hu* ‘all of sudden’ also indicates that Miaonü’s statement was unexpected. If *ge* is deleted in (5.18a), the subjective meaning is

lost and the sentence just denotes an event objectively. Similarly, in (5.18b), the use of the [V<sub>say</sub> *ge* InQ] pattern emphasizes the speaker's subjective feeling and indicates the speaker was not satisfied by what the fortune-teller said. It is implied in the expression that the speaker expected the fortune-teller to give more information. This subjective meaning is supported by using the adverb *qie* 'just, simply'. If *ge* is deleted in (5.18b), the subjective meaning is cancelled. (5.19) is an attested instance found in the CCL corpus to prove the intuition about the meaning change with the omission of *ge*. Without *ge* between the verb and its indirect quotation, (5.19) is a neutral statement describing the event without the speaker's subjective feeling. In addition, in (5.19), there are no additional adverbs like *hu* 'all of sudden' and *qie* 'just' to address the subjective meaning.

(5.20) presents another type of collocations of post-verbal *ge*, in which *ge* is followed by a WH-word.

- (5.20) a. 若 是 如 是 人, 愁 个 什 麼。  
*ruo shi rushi ren, chou ge shenme.*  
 if COP such person, worry GE what.

If (you are) such a person, you do not need to worry about anything

- b. 若 言 是 说, 说 个 什 麼。  
*ruo yan shi shuo, shuo ge shenme.*  
 if say this utterance, say GE what.

If we have decided, then we don't need to discuss about it anymore.

In these two instances, *ge* is followed by *shenme* 'what', which is in the position typically associated with the object of the preceding verb. *Shenme* 'what' in these instances does not form questions waiting to be answered. In other words, it is used in a non-interrogative way. The [V *ge* WH] pattern forms a rhetorical question with the meaning of 'no need to do the action designated by the verb' and the pattern denotes a negative meaning. Despite the object position, the referent of *shenme* 'what' used in (5.20) is not easy to describe. It can denote anything that causes the speaker to worry (5.20a) and anything the speaker may want to say (5.20b). So the non-interrogative *shenme* 'what' in (5.20) does not denote any concrete meaning. According to the property description in Haspelmath (1997), *shenme* 'what' of this use can be categorized as an indefinite pronoun. Although called 'indefinite pronoun', *shenme*

‘what’ in these instances, like some other indefinite pronouns described by Haspelmath (1997: 25), is ‘similar to the absence of any meaning at all’. The collocation with indefinite pronouns like *shenme* ‘what’ suggests that *ge* is able to collocate with less referential or even non-referential nouns and its referentiality constraint is disappearing. As demonstrated in (5.20), the [V *ge Shenme*] pattern is following conditional clauses and this is the major distribution of the pattern at that time. Similar instances do not exist in large number.

To sum up, in the 10<sup>th</sup> and the 11<sup>th</sup> century, many instances were found in which the bare *ge* in the post-verbal position collocates with nouns denoting abstract concepts. In these instances, due to the lack of overtly expressed numeral *yi* ‘one’, the number meaning of the NP is greatly bleached. *Ge* was also spotted used in a [V<sub>say</sub> *ge* InQ] pattern, in which *ge* follows a verb of communication and precedes a clause of indirect quotation. The presence of *ge* in this pattern enables a subjective reading and the structure attracts adverbs to emphasize the subjective meaning. In the corpus data, there are also several instances of the [V *ge Shenme*] pattern, which forms a rhetorical question with negative meaning. *Shenme* ‘what’ in this structure is less referential and this indicates that the function of the preceding *ge* is changing. The next section reports the change of post-verbal *ge* in the 12<sup>th</sup> and 13<sup>th</sup> century.

## 5.4.2 Post-verbal *Ge* in the 12<sup>th</sup> and 13<sup>th</sup> Century

The data collected in the 12<sup>th</sup> century are mainly from *Zhuzi Yulei* ‘The Quotation of *Zhuzi*’ which is the lecture notes of Zhuxi written by his students from various regions of China (Lin 2016). Although the language has been edited into written form, it still presents some features of the spoken language at that time. In addition, due to the importance of Confucianism in the 13<sup>th</sup> century, *Zhuzi Yulei* ‘The Quotation of *Zhuzi*’ was widely studied by scholars of that time. Mei (1998:80-83) argued that *Zhuzi Yulei* ‘The Quotation of *Zhuzi*’ is written based on *guanhua* ‘official language/ standard Chinese’ in the 12<sup>th</sup> and 13<sup>th</sup> century. The book contains about 2.6 million words and more than 3,000 instances with *ge* were found in it. They provide sufficient material for studying the use of post-verbal *ge* at that time.

### 5.4.2.1 [V (*yi*)*ge* N]

One feature of *ge* as a classifier used in *Zhuzi Yulei* is that it is often followed by abstract nouns, as in (5.21).

- (5.21) a. 要 须 天 命 个 心 了,  
*Yaoxu tian ming ge xin le,*  
 Need heaven name GE heart ASP,  
 方 是 性。  
*fangshi xing*  
 that.COP nature

Then it is necessary for the god to give a conscience, and then form a personality.  
 (conscience is born and personality is formed)

- b. 若 只 块 然 独 坐, 守 着  
*ruo zhi kuairan du zuo, shou zhe*  
 if only stone.like alone sit, guard PROG  
 个 敬, 却 又 昏 了。  
*ge jing, que you hun le*  
 GE respect, but again confused CRS

If you do meditation alone in order to show respect (to knowledge), then you are not doing it right.

In the two instances of (5.21), *ge* in both instances is followed by abstract nouns and in (5.21b), *jing* ‘respect’ following *ge* is not originally nominal but converted nominal denoting a property of being respectful. The nominal *jing* ‘respect’ is not referential but in this instance following *ge*, *jing* ‘respect’ means an idea of showing respect. Thus, *ge* in this instance is still a classifier and enables an individual reading on the abstract concept denoted by the derived noun.

In the 11<sup>th</sup> and 12<sup>th</sup> century, there are instances in which *ge* is followed by non-referential nouns with numeral *yi* ‘one’ and even non-nominal structures with numeral *yi* ‘one’ presented as in (5.22)

- (5.22) a. 盖 事 理 只 有 一 个  
*gai shili zhi you yi ge*  
 perhaps things only have one GE  
 是 非。  
*shi fei.*  
 right wrong.

Perhaps things can only be either right or wrong.

- b. 若 先 说 性, 却似 性  
*ruo xian shuo xing, quesì xing*  
 if first say personality, like personality  
 中 别 有 一 个 心。  
*zhong bie you yi ge xin.*  
 in other have one GE heart.

If you want to talk about personality, it seems conscience is also involved.

- c. 大抵 发生 都 则是 一 个 阳气。  
*dadi fasheng dou zeshi yi ge yangqi.*  
 in.general happen all COP one GE Yang.air.

In general, these are all because of the Yang air.

In these instances, *ge* with numeral *yi* ‘one’ precedes nouns of abstract concepts that are naturally not able to be individualized into discrete entities and therefore cannot be counted. In these instances, the preceding verbs are mainly copular *shi* ‘be’ and existential verb *you* ‘there be’. The primary function of numeral *yi* ‘one’ is to indicate the quantity of discrete entities or concepts but in these instances, the quantification meaning of *yi* ‘one’ is weakened or even bleached. There are two possible explanations for this. One is that *yi* ‘one’, together with *ge* has undergone a process of semantic change; the other is that it is possibly a ‘misuse’ of *yige* by mixing up with bare *ge*. Since at this stage, *ge* without a numeral in the post-verbal position does not impose constraints of referentiality on the following noun as shown in (5.20) so *ge* is undergoing semantic changes. At the same time, the bare *ge* can still function as a normal classifier with quantification meaning as shown in (5.21) (due to the omitted numeral *yi* ‘one’). Thus, the use of *yige* in (5.22) is possibly a ‘misuse’ of replacing non-referential *ge* with *yige* by overgeneralisation. The data from the later time periods involve few instances in which *yige* in the post-verbal position is followed by non-nominal elements. This suggests that the overgeneralized use of *yige* quickly died out. At this time, these instances indicate that *ge* is in the middle of function change and there is not distinct function of *ge* other than classifier has been stored in the speakers’ mind.

In (5.22), there is a potential conflict between the fact of loss of referentiality of *ge* and its classifier function over the following nominal. As mentioned in Chapter 1, *ge* as a classifier has a function of individualizing entities denoted by nouns and enabling nominal concepts to

be counted. Thus, in this sense, *ge* instantiates discrete entities out of a type. On the other hand, loss of referentiality indicates the concept denoted by a noun is not construed as an entity but a type. Chen (2003) noticed a similar problem in his research and sought a solution by distinguishing semantic referentiality and pragmatic referentiality. His method can be applied to explain the issue here. Chen (2003) defined these two types of referentiality by quoting Payne (1997: 264): semantically referential entity ‘exists as a bounded, individuated entity in the message world’ while pragmatically referential is related to the importance of the concept in a discourse. In (5.22), nouns following *ge* do not have much thematic importance in this contexts. That is to say, they are less likely to be further discussed in the following context and in other words unprofiled. Chen (2003) mentioned Wright and Givon (1987)’s research and proposed that if an NP is thematically unimportant, it tends to be encoded with a semantically non-referential reading even though it is marked as semantically referential and indefinite. In the instances here, the abstract concepts denoted by nouns following *ge* are not the topic in the discourse and therefore they are interpreted as non-referential even though they are still marked by classifier *ge* which normally marks referential nouns. In this sense, there is a form and meaning mismatch, which plays an important role in the following development of *ge*.

#### 5.4.2.2 [V *ge* WH]

A second feature of post-verbal *ge* in the 13<sup>th</sup> century is that its occurrence before WH-words increases significantly and this [V *ge* WH] appears in more types of contexts. (5.23) below lists some contexts in which [V *ge* WH] pattern is found.

- (5.23) a. 如      『求生      以      害      仁』,      须  
*ru*      ‘*qiusheng*      *yi*      *hai*      *ren*’,      *xu*  
 like      ‘survive      for      damage      benevolence’,      must  
 理会      得      害      个      甚么。  
*lihui*      *de*      *hai*      *ge*      *shenme*.  
 care      ASP      damage      GE      what.

As to the quotation ‘to damage benevolence in order to survive’, one must understand what is damaged.

- b. 而今 只 管 悬想 说 道  
*erjin zhi guan xuanxiang shuo dao*  
 now only care dream say about  
 一贯， 却 不知 贯 个 甚么。  
*yiguan, que buzhi guan ge shenme.*  
 same.rule but not.know apply GE what.

Now people only talk about following one rule (to understand things), but they do not know which rule should follow.

- c. 不然， 则 恃 个 甚！。  
*buran, ze shi ge shen.*  
 if.not, then rely GE what.

If this is not the case, then (you) do not have anything to rely on.

In (5.23a), [V *ge* WH] is in a deontic imperative; in (5.23b), [V *ge* WH] is in a scope of negation; in (5.23c), as in the (5.20), the pattern forms a rhetorical question. In (5.23c) and (5.20), [V *ge* WH] is not in the consequent clauses following the conditionals and they denote the consequences if the preceding conditions are satisfied. All these instances form non-interrogations that do not expect to be answered directly. Similar to *shenme* ‘what’ in (5.20), the WH-words in (5.23) do not have concrete meanings, so they are all indefinite pronouns.

Moreover, these indefinite pronouns are recognized as negative polarity items (NPI) licenced by the contexts of all the instances in (5.23) and (5.20). (5.23b) is a negative sentence so it can licence negative polarity items. According to Progovac (1988), imperatives and conditionals are ‘negative-like’ because they ‘cancel the truth value of a proposition’ (Li 1992: 130). (5.23a) is an imperative, which designates an irrealis event. Since the event is ‘unreal’ and has not yet occurred, the truth value of the proposition is cancelled. Conditionals in (5.23c) and (5.20) designate events whose truth value is uncertain. The following clauses designate the events that occur when the preceding conditions are satisfied, so the two clauses have the same truth value. In other words, the truth value of the clauses in which the indefinite pronoun *shenme* ‘what’ is used is also uncertain. In this sense, imperatives and conditionals can also licence NPIs, and Haspelmath (1997) directly categorized imperatives and conditionals together with negations as negative contexts. Furthermore, Haspelmath (1997) noted that indefinite pronouns as NPIs in these negative contexts can only have a non-



specific reading. As introduced in Chapter 4, the speakers are not sure the existence of the referents of non-specific nominals. So non-specific nominals are less referential. Moreover, Haspelmath (1997) also commented that it is possible that non-specific indefinite pronouns' referents do not exist. Lin (1998) also commented that these three types of negative contexts, i.e. negation, imperative and conditionals, are in a descending order in terms of their strength to licence the NPIs and therefore the non-specific reading of *shenme* 'what' in each context forms a gradient from referential to non-referential. Accordingly, the referential reading of *ge* in these types is also slightly different. Based on the data from the CCL, post-verbal *ge* with WH-phrases is most found in instances like (5.23c) and instances like (5.23a) and (5.23b) are relatively less used. These indicate that the referential constraint in the semantics of post-verbal *ge* is missing but not completely lost yet.

### 5.4.2.3 [V<sub>say/think</sub> *ge* X]

The fourth feature of the use of *ge* in the 12<sup>th</sup> century is that it is found in many instances to co-occur with verbs of either communication or mental activities. In the corpus of this time period, there are altogether 737 tokens of [V *ge* X] patterns in which *ge* is directly preceded by a verb which is neither *you* 'have or there be' nor *shi* 'be' without numerals. Of these 737 instances, *ge* is found to co-occur with verbs of communication and mental activities in 193 instances. The most frequently used verb is *shuo* 'say/ speak/ talk', which appears in 72 instances.

In these 193 instances, the [V *ge* X] pattern does not denote obvious aspectual meaning and most of the verbs are not used as action verbs. In order to investigate the function of *ge* in these cases, I mainly analyzed the instances of verb *shuo* 'say/ speak/ talk' with *ge*, i.e. [V<sub>say</sub> *ge* X].

The 72 instances of [V<sub>say</sub> *ge* X] can be divided into 3 categories according to the formal properties of the elements following *ge*: *shuo ge*+ direct quotation, *shuo ge*+ NP, and *shuo ge*+ clause. This type of [V *ge* X] was illustrated above in (5.21) but the subjects of the verbs of saying are all humans and the elements following *ge* are all clauses as indirect quotations. In the 12<sup>th</sup> century, this pattern has further developed and the subjects could be inanimate, such as 书 *shu* 'book' and the following clause is a direct quotation as illustrated in (5.24).

BOOK+ *shuo ge* + Direct Quotation

- (5.24) 故 论语 首 章 只 说 个 “学  
gu lunyu shou zhang zhi shuo ge ‘xue  
so Lunyu first chapter only say GE ‘study  
而 时 习 之, 不 亦 说 乎”  
er shi xi zhi, bu yi yue hu’  
and often review it, not also happy interj.

So the first chapter of *Lunyu* only talks about ‘it is a enjoyable process to study and review what has been learnt frequently’

The subject can also be a quotation as in (5.25)

QUOTATION+ *shuo ge*+ Direct Quotation

- (5.25) 如 “出门、 使民”, 也 只  
ru ‘chumen, shimin’, ye zhi  
like ‘go.outside, do.construction.work’, also only  
说 个 “出门、 使民” 便  
shuo ge ‘chumen, shimin’ bian  
say GE ‘go.outside, do.construction.work’ as  
了, 何故 却 说 “如 见 大  
liao hegu que shuo ‘ru jian da  
finish why instead say ‘like meeting great  
宾, 如 承 大祭”?  
bin, ru cheng daji’?  
guest, like doing a.solemn.sacrifice’?

Why does it say ‘to go outside like to meet important guest and to do a construction work like to do a solemn sacrifice’, instead of saying simply ‘to go outside and to do construction work’?

There are also instances in which *shuo* is highly grammaticalized and it does not have a subject. It is impossible to infer any potential subject in the context as in (5.26)

EMPTY SPEAKER (Null subject)+ *shuo ge*+ Direct Quotation

- (5.26) 须 于 方 动 之 时 审  
xu yu fang dong zhi shi shen  
should at begin move ASSOC time observe  
之, 方 无 凶 悔 吝, 所以  
zhi, fang wu xiong hui lin, suoyi  
it, then no bad regretting short.of, so  
再 说 个 ‘动’。  
zai shuo ge ‘dong’  
again say GE move.

It (the situation) should be observed before taking actions and only then there will not be any bad result. Then actions can be planned.

In some instances, the subject of the verb *shuo* ‘say’ is human and *ge* is followed by a direct quotation, but the verb does not designate a speaking action. The quotation following *ge* is conveyed by the texts written by Confucius (normally referred as *shengren* ‘the Saint’ to show respect), as in (5.27)

SPEAKER + *shuo ge*+ Direct Quotation

- (5.27) 所以 他 圣人 不 说 深 思,  
suoyi ta shengren bu shuo shen si,  
So he saint NEG say deep thinking,  
不 说 别样 思, 却 说 个  
bu shuo bieyang si, que shuo ge  
NEG say different thinking, but say GE  
“慎 思”  
‘shen si’.  
‘care thinking’

So the Saint does not say to think in depth or to think in a different way, but says ‘to think with care

*Ge* following *shuo* ‘say’ can also precede NPs, but the NPs are normally non-referential. *Ge* in these instances is not closely associated with the following noun, unlike the ones in (5.16) and (5.21) in which *ge* is still a classifier.

BOOK+ shuo ge+ NP

- (5.28) 易 只是 说 个 卦象  
Yi zhishi shuo ge guaxiang  
Yi only say GE meaning.of.hexagram.  
Yi only talks about the meaning of hexagram.

SPEAKER+ shuo ge+ NP

- (5.29) 至 孟子 见 梁王, 便 说 个  
zhi Mengzi jian Liangwang, bian shuo ge  
Until Mencius meet King.Liang, then say GE  
仁义 与 利  
renyi yu li.  
justice and profit.

Mencius met King Liang and talked about justice and profit.

In this category, the elements following *ge* can be NPs and coordinated NPs. In (5.28), the message is conveyed in the form of texts; in (5.29), the proposition following *ge* is delivered by the speaker, but unlike (5.18) and (5.19), it is just a summary of the speech of the speaker in a form of coordinate NP.

(5.30) illustrates some instances in which *ge* is followed by a clause and the subject of *shuo* ‘say’ is either inanimate or animate.

(5.30) BOOK+ shuo ge+ CLAUSE

- a. 易 只是 说 个 象 是 如此  
Yi zhishi shuo ge xiang shi ruci.  
Yi only say GE hexagram is like.this.  
Yi only talks about what hexagram indicates.

SPEAKER+ shuo ge+ CLAUSE

- b. 他 只是 说出 个 意思 要 如此.  
Ta zhishi shuochu ge yisi yao ruci.  
He just say.out GE meaning should like.this.  
He just expresses an idea like this.

In this category, similar to the previous two, the speakers are not emphasized. In (5.30b), despite an overt speaker, the expression does not designate an interactive communication event and the verb *shuo* ‘say’ is translated as ‘to express’.

The above-listed instances, as indicated, do not have strong aspectual reading, and some instances from the corpus of the same period demonstrate that if *ge* is omitted as in (5.27), the expressions are still well-formed. The element following *ge* is a summary of what the communication activities convey. *Ge* can be considered as a focus marker to highlight the following proposition in this pattern. The verb *shuo* ‘say’ in these instances does not denote strong activity meaning, but in (5.18) and (5.19) the communicative meaning cannot be ignored. Thus, I try to solve the problem first by examining the change of meaning of the verb *shuo* ‘say’.

*Shuo* ‘say’ as a verb of communication in Chinese can mean ‘to say, to talk, to speak’. The verb of communication naturally has three participants: speaker/ writer, message, and the hearer/reader. Speakers/ writers and messages are normally essential in the communication event but the hearers/readers are not. Dirven et al. (1982) described the communication scene. They mentioned there are three ways of framing the messages, as illustrated in the following examples, by direct enunciation (a), by indirect enunciation (b) and by synthesis (c).

(a) He said: ‘John is leaving’.

(b) He said that John was leaving.

(c) He told us about John’s leaving.

Dirven et al. (1982) also talked about the channels of conveying messages. One of the important ways is by textual conveyors. According to Dirven et al. (1982), a textual conveyor is the form of the information when transferred via a channel. To be more specific, if information is transferred in a form of text, the text is called textual conveyor. Dirven et al. (1982:5) pointed that the expression like ‘the statement says’ is an example of a textual conveyor.

This discussion on the verbs of communication in English shed some lights on the analysis of the instances in Chinese above. In (5.24), (5.25), (5.26), (5.28) and (5.30a), messages are conveyed clearly not by human speakers but by textual conveyors. In (5.26), the speaker is not clearly inferred in the context. In (5.27), the quotation following *shuo ge* is also not part of a dialogue but a quotation from the book of the saint. In (5.29) and (5.30b), the messages are framed by synthesis, which is to summarize the key information transferred in the

communication and also minimise the meaning of interactive communication of the verb *shuo*.

Dirven (1982) compares ‘say’ and ‘talk’ in English. He argues (1982: 39) that ‘talk’ tends to denote ‘this linguistic action in its entirety’ while ‘say’ just denotes ‘each and every part of this linguistic action’. In other words, ‘talk’ tends to be followed by the summarized topic of the communication and ‘say’ is followed by an instance utterance in the communication. So according to this observation, by comparing the instances listed above in the three categories, the expressions following *ge* are all generalized topics of a communication event or a piece of text. The most controversial one is (5.27). In (5.27), *shensi* ‘to think with care’ is a direct quotation of the Saint, but in the context, it is not about this single quotation, but the idea of the Saint that can be summarized by this quotation. Thus, it is not simply a piece of utterance, but also the essential idea of the communication in the form of direct quotation.

To sum up, the [ $V_{\text{say}} ge X$ ] pattern does not denote strong interactive communication scene and the message denoted by *X* is actually a summarized topic. The presence of *ge* in this pattern is not a classifier that associated with the following *X* since it does not individualize the concept denoted by *X*. In this sense, *ge* in these [ $V_{\text{say}} ge X$ ] pattern has demonstrated the loss of genericity component which is the result of the third semantic bleaching process.

#### 5.4.2.4 Other [ $V_{\text{say/think}} ge X$ ] variants

The variants of the [ $V_{\text{say/think}} ge X$ ] pattern already discussed in connection with the data from the 11<sup>th</sup> and 12<sup>th</sup> century, do not show much aspectual reading yet but some variants with hints of this reading are reported in this sub-section.

- (5.31) a. 只 争 个 知 与 不知。  
*zhi zheng ge zhi yu buzhi*  
 Only argue GE know and not.know.  
 ...only try to distinguish knowing and not knowing.

- b. 凡事 只 去 看 个 是非  
*fanshi zhi qu kan ge shifei*  
 everything only go see GE yes.no.  
 If everything is only distinguished by right or wrong...

c.	凡	遇	事	先	须	识
	<i>fan</i>	<i>yu</i>	<i>shi</i>	<i>xian</i>	<i>xu</i>	<i>shi</i>
	generally	confront	thing	first	should	learn
	得	个	邪正		是非。	
	<i>de</i>	<i>ge</i>	<i>xiezheng</i>		<i>shifei</i>	
	ASP	GE	bad. good		yes.no	

Generally, one should learn first which is good and which is bad, which is right and which wrong.

This [V *ge* X] form can be generalized as [V *ge* A (conjunction) B], and based on the data from the CCL, verbs filling the V slot are mainly *zheng* ‘argue/distinguish’, *fen/fenbie* ‘distinguish’, *lihui* ‘focus’, *kan* ‘see/distinguish’, *shide* ‘learn’, *zhi* ‘know’. These verbs all have a semantic component of distinguishing and the verb *zheng* ‘argue’ and *fen* ‘distinguish’ are the most used ones. In addition, the verb *zheng* ‘argue’ in this pattern is normally collocated with emphatic adverb *zhi* ‘only/ simply’ which indicates the focus. Furthermore, other examples use other devices to express the speaker’s attitude. For example, (5.31c) uses modal verb *xu* ‘should’. In addition, as Traugott and Dasher (2001) discussed, the word *de* also has some modal meaning which means ‘able’ or ‘possible’. Variables A and B denote a pair of opposite concepts and they can be verbs (a) or adjectives (c). When A and B are verb phrases, the conjunction between them is normally present but when A and B are adjectives, the conjunction is often omitted. Even though the variables A and B are originally verbs, in this pattern they do not show verbal properties. This is due to its syntactic position and meaning in the whole expression. A and B do not denote actions of temporal relationship with the main verb V, but mean the content or result of activity denoted by V. That is to say the purpose or the expected outcome of doing V is to distinguish A and B.

In this type of [V *ge* X] form, *ge* does not function as a typical classifier because the elements following *ge* are not typical nouns and the concepts they denote do not need to be quantified or individualized. *Ge* in this [V *ge* A (conjunction) B] pattern is used to mark the possible outcomes of the distinguishing action designated by V.

There is another type of [V *ge* X] that denotes a bounded meaning, as in (5.32).

- (5.32) a. ‘以 仁 为 柔, 以 义  
*yi ren wei rou, yi yi*  
 with kindness as flexibility, with justice  
 为 刚’, 止 说 得 个  
*wei gang, zhi shuo de ge*  
 as firmness, only say possible GE  
 情状 体段耳。  
*qingzhuang tiduaner.*  
 appearance body.shape.

It just gets a superficial idea by saying ‘to use kindness as flexibility and to use justice as firmness’

- b. 然 只是 想象 得 个 意思 如此。  
*ran zhishi xiangxiang de ge yisi ruci.*  
 but only imagine ASP GE meaning such.

But (one) is just able to imagine an idea in this way.

These two instances in (5.32) are similar to the [V<sub>say</sub> *ge* X] type in a way that the verb preceding *ge* is a verb of communication or a verb of mental activity. But the constituents following *ge* do not mean the summarized topics conveyed by the communication or mental activity. X in this pattern denotes the result of actions designated by these verbs. In (5.32a), the quotation only describes a superficial understanding of something but no further more. In (5.32b), the ultimate achievement of imagination is only a general idea about a concept and no more details. These instances indicate a limitation of the action designated by the preceding verb and thus can be construed as bounded.

### 5.4.3 Summary

The period from the 10<sup>th</sup> to 13<sup>th</sup> century is a transitional stage of the Chinese language from the archaic style to the early modern style. In this time, post-verbal *ge* is also undergoing an important phase of acquiring a new grammatical function. In the middle of the 10<sup>th</sup> century, post-verbal *ge* is found followed by prototypically non-nominal constituents, such as nominalized VPs. But these tokens are very rare at this stage. In the early 11<sup>th</sup> century, post-verbal *ge* is mainly functioning as a classifier but more instances are found in which it collocates with less referential nouns that do not have thematic importance. In the 12<sup>th</sup> century, post-verbal *ge* is followed by non-referential nouns. There is a mismatch between the



fact of *ge* as a classifier and the non-referential reading. This mismatch motivates the further semantic bleaching of *ge*. There is also a large number of instances of [V *ge* WH] found first in the late 11<sup>th</sup> century, which was further widely used in the 12<sup>th</sup> century. [V *ge* WH] are found frequently used in conditionals forming rhetorical questions. The WH words are identified as indefinite pronouns. According to the typological research of Haspelmath (1997), the WH words in these contexts are typically used with non-specific reading. *Ge* in these instances preceding the non-specific indefinite pronouns indicates that *ge* has lost the capacity of marking referentiality. Since *ge* has been through a continuous semantic bleaching process, post-verbal *ge* is found in more instances to collocate with non-nominal constituents, and some of these instances have somehow bounded aspectual readings. At this time, there is no clear evidence showing that [V *ge* N] type has bounded aspectual reading but some [V *ge* Clause] and [V *ge* A(conjunction)B] are found with a bounded aspectual meaning.

At this stage, *ge* is also found in [V<sub>say/think</sub> *ge* X] pattern, with a discourse function of marking focus. In these instances, *ge* does not have a clear individualization function either over its following constituents or the whole event. The link between this function and *ge*'s classifier function is not clear at this stage.

Furthermore, there is only one instance found in which *yi* remains in [V *ge* WH-phrase]; in all [V *ge* Clause] and [V<sub>saythink</sub> *ge* X] instances *yi* is deleted. This suggests that the use of *yige* with non-referential nouns in the early 11<sup>th</sup> century was a misuse with non-referential bare *ge* by overgeneralization. However, it is also possible that *yi* 'one' also has started its grammaticalization, like in other languages, but its grammaticalization process is much slower than *ge*.

## **5.5 The Emergence of the [V *ge* X] Pattern with Aspectual Meaning in the 13<sup>th</sup> Century**

In the late 13<sup>th</sup> century to the late 14<sup>th</sup> century, *ge* in post-verbal position gains new types of collocations. First of all, post-verbal *ge* is found to precede VPs and small clauses, which have different meanings from the instances in the 12<sup>th</sup> century. In the 12<sup>th</sup> century, the non-nominal elements following post-verbal *ge* indicate the content of saying or thinking designated by the preceding verbs. In the instances of the late 13<sup>th</sup> century, VPs and small

clauses following *ge* denote the result of the action designated by the preceding verbs, as instances in (5.33).

- (5.33) a. 检看      个    明白。  
*jiankan      ge    mingbai.*  
 examine    GE   clear  
 Examine till things are clear.
- b. 又    睡    个    日    高    三    丈。  
*you    shui   ge   ri   gao   san   zhang*  
 again   sleep   GE   sun   high   three   zhang  
 Sleep until late (the sun rises high).

In (5.33a), *ge* is followed by an adjective and in (5.33b) *ge* is followed by a small clause. Both instances designate telic and bounded events. These types of instances are not frequently found and post-verbal *ge* are mainly collocated with NPs. However, in this time period, NPs following *ge* show some special features.

- (5.34) a. 徐能    陪      个    笑脸。  
*Xuneng    pei      ge    xiaolian.*  
 Xuneng   pay.for   GE   smile.  
 Xuneng smiled obsequiously.
- b. 女孩    深深地          道    个    万福。  
*nvhai    shenshendi      dao    ge    wanfu.*  
 girl    deeply          say    GE   wanfu.  
 The girl greeted with great respect (feminine style).
- c. 沈洪          唱          了    个    淡    喏。  
*Shenhong    chang    le    ge    dan    re.*  
 Shenhong    sing      ASP   GE   light   sound.  
 Shenhong made a bow with hand folded in front of him  
 and greeted briefly.

- d. 去 应            个 儒士    科举  
     *qu ying*        *ge rushi keju*  
     go participant GE scholar imperial.examination  
     吧。  
     *ba.*  
     interj..

Go to participant the imperial examination.

In (5.34), *ge* is followed by non-referential NPs and these NPs are the collocational objects of the preceding verbs. In other words, the NPs following *ge* together with the preceding verbs form idiomatic VPs denoting actions. The NPs following *ge* in (5.34) are all non-referential. These NPs and the preceding verbs can be used together without classifiers denoting non-compositional meaning. As in (5.34a), the VP *peixiaolian* does not mean to pay for a smiling face. Instead, it means ‘to smile obsequiously.’ *Wanfu* in (5.34b) is a greeting phrase literally meaning ‘a lot of blessings’ and it can be used with the verb *dao* ‘say’. *Daowanfu* does not simply mean ‘to say *wanfu*’, but it always denotes a particular female greeting gesture. *Re* in (5.34c) is similar to *wanfu* literally meaning a phrase to sing when meeting with other people. So *changre* is used in an idiomatic way to designate a particular greeting method among men. In (5.34d), *rushu keju* ‘imperial examination for scholars’ and its preceding verb are less idiomatic but they are conventionally used together. Thus, the non-referential NPs following post-verbal *ge* in this time period are different from the instances in the 12<sup>th</sup> century which do not have a collocational relationship with the preceding verbs. Furthermore, instances in (5.34) all denote telic and bounded events and designate specific events. In (5.34), since the non-referential NPs are collocational objects of the preceding verb, *ge* is not used to individualize nominal concept denoted by these NPs. So *ge* in (5.34) is not a classifier.

In the 13<sup>th</sup> century, there are many instances like (5.35) in which *ge* is followed by VPs. These instances are different from (5.33) in terms of aspectual meaning. VPs and small clauses in (5.33) indicate the resultant states of the actions designated by the preceding verbs and mark the endpoints of the events. But in (5.35), elements following *ge* are the goal of doing the action designated by the preceding verbs. In other words, these elements following *ge* in (5.35) are objects of the preceding verbs. They are nominalized and they can be questioned by *shenme* ‘what’. As analysed in Chapter 2, *ge* in these instances is not a nominalizer which converts the following VPs into nominal. They are nominalized by the

predicate- argument structure and therefore serve as objects of the preceding transitive verbs. Verbs in (5.35) require objects because of their lexical meaning, i.e. doing an action to achieve something and thus the following nominalized VPs indicate the achievements of the action designated by the preceding verbs. The function of *ge* in these instances is to shift the focus from the action itself to the result of the action. Without *ge*, the focus of these expressions is on the preceding verbs which simply mean ‘to search for’ or ‘to work for something’ without obvious telic and bounded reading.

So *ge* in (5.35), is neither nominalizer nor classifier because it is not functionally associated with the following de-verbal NPs, similar to the instances in (5.34). *Ge* in these instances foregrounds and profiles the goals and it implies that the actions will stop once the goals are achieved. Thus, instances in (5.35) have a telic and bounded reading.

- (5.35) a. 寻      个    自尽  
*xun      ge    zijin*  
 Search GE suicide  
 Commit suicide
- b. 挣      个    出头。  
*zheng    ge    chutou.*  
 earn      GE    end.miserable.life.  
 Work hard to end the miserable life.
- c. 枉自      讨    个    厌贱  
*wangzi    tao    ge    yanjian.*  
 in.vain    beg    GE    dislike.  
 Have done something in vain and end up with  
 being disliked.
- d. 只      图      个    下半世    受用。  
*zhi      tu      ge    xiabanshi    shouyong.*  
 only    pursue    GE    senior.life    benefit.  
 (I) only want it to benefit my senior life.

All the instances above show that in the 13<sup>th</sup> century *ge* in post-verbal position co-occurs with nouns which are the collocational objects of the preceding verbs and de-verbal nouns marking the goals of the actions designated by the preceding verbs. In these instances, *ge* is not a classifier and not associated with its following nouns. The whole expressions have telic and

bounded aspectual readings. Therefore, at this point, we can say that [V *ge* X] pattern with telic aspectual meaning finally appears.

When [V *ge* X] pattern with telic aspectual meaning emerges in the 13<sup>th</sup> century, there are other instances whose interpretation is ambiguous as in (5.36a). *Ge* in this instance can be a classifier associated with its following noun, and at the same time, it can be considered as part of the [V *ge* X] pattern due to the telic aspectual meaning of the expression. (5.36b) and (5.36a) are found in the same text. According to the context, in (5.36b), the omitted noun following *ge* refers to light. Thus, *ge* in (5.36b) is a pronoun derived from classifier plus its following noun. In other words, *ge* in *dian ge deng* ‘light a light’ can be a classifier as well. These instances in (5.36) suggest that [V *ge* X] pattern with telic and bounded meaning is not clearly distinguished from its [V CL N] counterpart.

- (5.36) a. 老身 自 去 点 个 灯 来。  
*laoshen zi qu dian ge deng lai.*  
 old.body self go light GE light come.  
 I will go to bring a light.
- b. 我 再 去 点 个 来 照 你。  
*wo zai qu dian ge lai zhao ni.*  
 I again go light GE come shine you.  
 I will go to light another (light) to shine for you.

In the 13th century, there are also some instances of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern found as in (5.37).

- (5.37) a. 兀自 心头 突突的 跳 个 不 住。  
*wuzi xintou tutudi tiao ge bu zhu.*  
 still heart pit.a.pat beat GE not stop.  
 The heart still keeps going pit a pat.
- b. 哭 一 个 不 住。  
*ku yi ge bu zhu.*  
 cry one GE not stop.  
 (she) kept crying.

(5.37a) represents an instance used the same as the one in contemporary Chinese but (5.37b) instantiates a case that is rarely found in Mandarin. In (5.11b), there is a numeral *yi* ‘one’ preceding *ge*. In these instances *ge* is not a classifier because it is not followed by a nominal

element, so numeral *yi* ‘one’ preceding *ge* in (5.37b) is not for quantifying. It can be explained as a result of overgeneration of the use of *ge* as a classifier. That is to say, speakers overgeneralize the rules of classifier *ge* and apply these rules to *ge* in these patterns. The misuse of *ge* in (5.37b) suggests that [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is relatively innovative and speakers do not distinguish this pattern clearly from its classifier usage.

To sum up, since the 13<sup>th</sup> century, [V *ge* X] pattern with telic aspectual meaning finally emerges. The most frequently used type of this pattern is [V *ge* NP] and NPs in this type include collocational objects of the verb in verbal phrases and de-verbal nouns. But [V *ge* NP] pattern of aspectual function has an overlap with [V classifier NP] structure and there is an ambiguous area between them. Instances of [V *ge* VP] variation are also found but they are relatively infrequent. The [V<sub>1</sub> *ge* Neg V<sub>2</sub>] type also comes into existence but again is used not in large number. There are instances in which numeral *yi* ‘one’ co-occurs with *ge*. These instances suggest that [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern is a newly formed structure.

## **5.6 Trigger: The influence of the omission of *yi* on the emergence of [V *ge* X]**

By studying the development of *ge* in the post-verbal position, it is evident that the emergence of [V *ge* X] has been through several steps of changes. Around the 6<sup>th</sup> century, the category of classifiers in Chinese is established and the classifier preceded by a numeral is used to enable a noun to be countable. Since the omission of *yi* before *ge*, post-verbal *ge* is able to collocate with nouns denoting a wider range of entities. As indicated in the instances above, the nouns following the bare *ge* in the post-verbal position are not necessarily referential and in many instances after the 10<sup>th</sup> century, the bare *ge* collocates with non-nominal elements. Along with the change of *ge*’s collocational range, the semantic property of *ge* changes accordingly. These changes can be considered as a preparation for the emergence of [V *ge* X] pattern with telic and bounded meaning. All these changes start from the drop of the numeral *yi* ‘one’ so this section is devoted to answering the question about how the omission of numeral *yi* ‘one’ triggers the new function of *ge* in the post-verbal position.

### 5.6.1 Development of *yige* in Chinese compared with English indefinite article

Many researchers believe that the indefinite singular markers for NPs in most languages are developed from the numeral ‘one’ (Christophersen 1939, Givón 1978, Givón 1981, Okochi 1988). Lü (1984), Zhao (1999) and Mi (2009) also mentioned in their research that when the numeral *yi* ‘one’ drops, the bare *ge* functions in a way similar to the English indefinite article. Givón (1981) proposed that the process of the development involves several steps. He believes at the early step, the word for one is used to mark singular referential indefinite NPs and at the other end of the process as in English, ‘one’ or its ‘reduced de-stressed reflexes’ is able to mark both referential and non-referential NPs.

Based on the diachronic study above, *yige* is first used to mark the existing entities and denotes singular meaning to contrast with the whole group. Thus, an NP with *yige* at that time must be referential. Furthermore, in Chinese, definite NPs are marked, usually by demonstratives or other methods and thus, NPs with *yige* are normally indefinite. Later after the 6<sup>th</sup> century, the quantifying meaning of *yige* becomes weaker like in (5.10b), repeated here as (5.38).

- (5.38) 某甲 有 一 个 拙见。  
mojia you yi ge zhuojian  
I have one GE<sub>cl</sub> idea  
I have an idea.

In (5.38), ‘*yige*’ denotes the singular number of the idea, which is the first time introduced in the discourse. The singular meaning of *yige* does not contrast with other numbers in this instance. Thus, at this time, *yige* starts to mark indefiniteness.

When the numeral *yi* ‘one’ is omitted, the collocates of *ge* in the post-verbal position extend. (5.9c) here is repeated as (5.39).

- (5.39) 总 未 见 人 持 个 消息 来。  
zong wei jian ren chi ge xiaoxi lai.  
always no see people bring GE<sub>cl</sub> message come  
No one brings any news to me.

In (5.39), the object NP with bare *ge* still indicates an indefinite entity. Although there is a NEG in this sentence but *ge* and the NP it appears are not affected. But in this instance, *xiaosxi* ‘message’ can be either specific or non-specific. So *ge* here as a marker for the noun is moving towards the final step in English, where it can be understood to marks less referential NPs.

In the example (5.10d), here repeated as (5.40), *ge* is used to collocate with the noun *shan* ‘coat’, which is normally modified by its specialized classifier *ling*.

- (5.40) 着 个 绯衫 倚势 行。  
*zhou ge feishan yishi xing*  
 wear GE<sub>cl</sub> red.coat along.road walk.

(someone) walks along the road wearing a red coat.

As analyzed in section 5.3 above, compared with instances in which it is modified by its specialized classifier *ling*, the noun *shan* ‘coat’ with *ge* after a verb is less referential. The specific entity denoted by *shan* ‘coat’ in (5.40) is not the topic in the discourse and is not mentioned in the following context. According to Givón (1981), this kind of NP (here is ‘*ge* + *shan*’) is logically referential but its identity is pragmatically incidental. In other words, it is between referential indefinite NP and non-referential NP (Givón 1978). Thus, this instance also supports the argument that *ge* without numeral is moving towards the final step of the development of the indefinite article like in English.

In the late 10<sup>th</sup> century, instances like (5.16) appear. Here it is repeated as (5.41).

- (5.41) 若 要 大 事 辨, 识 取  
*ruo yao da shi bian, shi qu*  
 if want big thing understand, recognize ASP  
 个 泡幻, 作麽生。  
*ge paohuan, zuomosheng.*  
 GE bubble, why.

If (you) want to understand the world and life, why try to pursue something unrealistic.’

In (5.41), the noun *huanpao* ‘illusion’ following *ge* after the verb is less referential. It does not refer to any identity or individual illusion, but a type of abstract concept. Compared with (5.40), *ge* in (5.41) does not denote singular meaning. This example proves that *ge* without



numeral in the post-verbal position is able to collocate with less referential NPs like the indefinite article *a/an* in English.

Although *ge* without a numeral is able to collocate with non-referential indefinite NPs, it still has its limitations. Unlike the indefinite article in English, an NP with bare *ge* is commonly located in the post-verbal position and cannot be used as the subject. The English indefinite article *a* can mark generic NPs in subject position, but in Chinese, the generic reading is denoted by a bare noun, without *ge* or *yige*. To sum up, the omission of numeral *yi* ‘one’ triggers a new function of *ge* as a non-referential marker and this new function is further developed to form the [V *ge* N] pattern with telic aspectual meaning.

### **5.6.2 The Formation of [V *ge* N] with Telic Aspectual Meaning and the Drop of Numeral *Yi* ‘one’**

*Yige* is originally used for quantifying entities denoted by a noun and appears either before or after the noun it modifies. Later, the quantifying function is reduced and *yige* tends to focus on the existence of an entity out of a type. Since the omission of *yi*, the bare *ge* in an object NP is allowed to collocate with non-referential elements.

In the study of indefinite articles in English, Givón (1981) summarizes a gradual changing process on a scale as following:

Quantification > Referentiality > Genericity

This process can also be applied to depict the changing sequence of *ge* in the post-verbal position. Due to the special function of classifier phrases (Num+ CL), this scale is revised as:

Quantification > Referentiality > Genericity > Individuality\*

Givón (1981) suggested that this scale is also a semantic bleaching process. If an entity can be quantified, it should exist or be referential. And if the entity is referential, it is from a type and the noun denoting the entity is generic. As in Chinese, the individuality is the basic function of all classifiers, this semantic meaning cannot be bleached. However, the individuality conflicts with the genericity. Thus, I mark individuality with ‘\*’ for its function in a different scope. *Yige* has the quantification function at the beginning and then this function is bleached and becomes a marker for referentiality. After the drop of *yi* ‘one’, the referentiality

restriction on *ge* in the object NP is further bleached. According to Givón (1981), a ‘relatively high text frequency of use’ leads to this semantic bleaching. In Chinese, this is supported by the quantity research on the data collected from the CCL corpus. The referential use of *yige* and *ge* in the early 7<sup>th</sup> century takes about 40% of the total use of *ge* and this rate increases to 70% in the later 10<sup>th</sup> century.

The bleaching is considered to start when *ge* co-occurs with nouns that already occur with their specialized classifier. At that point, *ge* is still preceded by the numeral *yi* ‘one’, but the whole NP in post-verbal position does not focus on the singular number of the entity denoted by the noun, but the existence of the entities of the concept. At this point, the quantification function of *yige* has been weakened but not completely bleached. This allows the category of nouns that can fit in the noun slot after *ge* to be enlarged. However, the internal structure is not changed. *Ge* is still attached to the following noun and marks referentiality.

The bleaching is accelerated when the numeral *yi* ‘one’ drops in the post-verbal NP. When the numeral drops, the quantification function of the classifier phrase is greatly bleached and the expansion of the collocation of *ge* is not restricted by the quantificational meaning anymore. That is to say, more types of nouns are able to collocate with *ge*, including nouns as in (5.40), which are not able to collocate with *ge* when the numeral is present. As analyzed above, the NP in (5.40) expresses less referential meaning compared to the NP with a specialized classifier in post-verbal position. That is to say, the referentiality constraint in *ge* is disappearing. The quantification method in Chinese is different from that in English given the fact that Chinese NPs need classifiers following numerals when being numbered. Thus, when the numeral *one*’s reduced form in English is *a/an*, Chinese *yige* ‘one’ reduces the numeral part and *ge* remains. So without numeral *yi* ‘one’, in post-verbal position, *ge* undergoes the second phase of semantic bleaching .

After the second bleaching, based on Okochi (1988), if an NP is not marked by any means in the context, it tends to be interpreted as non-referential. That is to say, when the referentiality is bleached in *ge*, non-referential NPs do not need to be marked by *ge*. As a result, in the [V *ge* N] pattern with telic aspectual meaning, *ge* is less attached to the following noun. When *ge* has the minimum function over the following elements as in (5.20), the referentiality property of *ge* is bleached but the individuality property retains. The individuality as mentioned in the previous section is to extract a discrete unit from a type of concept. This interpretation,

however, conflicts with the fact that referentiality and genericity are bleached. In this sense, the scope that individuality functions should be shifted, from spatial to temporal. The internal structure of [V *ge* N] needs to be analysed alternatively. Accordingly, when *ge*'s marking function on the following element becomes redundant, *ge* in this specific position, between a verb and its object, acquires new function relating to the whole [V *ge* X] pattern. Since the basic individualizing function of *ge* retains, *ge* is ready to individualize the event. Consequently, the [V *ge* X] pattern acquires a telic and bounded aspectual meaning.

After the 10<sup>th</sup> century, the numeral *yi* 'one' can be omitted before other classifiers as well, but the object NPs with other 'bare classifiers' together with its preceding verb do not generate the new telic and bounded aspectual meaning. Two facts may be responsible for this. First of all, since *ge* originates from a counting unit and later as a counting rod for other entities, the singular meaning is the fundamental part of its semantic property. This basic semantic property of *ge* overlaps with the semantic property of numeral *yi* 'one'. Furthermore, the other classifiers are specialized classifiers for certain type of nouns and they also denote some salient features of the entities. For example, the classifier *tiao* implies the noun it modifies denotes long, thin entities and the classifier *zhang* is used to count entities with flat surfaces. These additional features to the entities from the classifiers imply the existence of entities and thus the semantic bleaching as described above cannot be completed. *Ge*, however, does not denote any other features of the entity it precedes, so it is the best choice for the [V *ge* X] pattern.

## 5.7 Conclusion

The chapter demonstrates the historical development of *ge* in the post-verbal position and the emergence of the [V *ge* X] pattern of telic and bounded aspectual meaning. *Ge* as one of the earliest proto-classifiers was created to distinguish singular units from plural measures, parts from the whole. After the 6<sup>th</sup> century, *ge* becomes a general classifier and is able to collocate with nouns denoting various types. Since the 6<sup>th</sup> century, *ge* is used with nouns denoting not only concrete entity or substance but also abstract units such as time, language units, ideas, etc. In the 8<sup>th</sup> century, when *ge* is used in a post-verbal position, if the preceding numeral is *yi* 'one', it tends to be omitted. The omission of the numeral enables *ge* to collocate with more types of nominal structures, including less referential nouns and complex structure NPs. In the late 9<sup>th</sup> century, the bare *ge* in the post-verbal position is found to collocate with non-nominal

structures. Post-verbal *ge* when collocating with the non-nominal structures is not a classifier but the new [V *ge* X] pattern does not have telic and bounded meaning like the pattern analyzed in Chapter 4. Instead, it is another structure in which *ge* is typically preceded by verbs of communication and followed by various types of structures as the complement of the verb, including non-referential nouns, non-nominal structures and clauses. This [*V<sub>say</sub> ge* X] pattern indicates a strong subjective downward entailing and *ge* in this pattern is not a classifier anymore but a marker of the subjective meaning. At the same time, post-verbal *ge* undergoes a continuous semantic bleaching process. In the 11<sup>th</sup> century, post-verbal *ge* is commonly found used with non-referential nouns and in the 12<sup>th</sup> and 13<sup>th</sup> century, more instances of rhetorical questions were found in which post-verbal *ge* precedes a WH-word. The WH-word in this structure has non-specific reading and even has no denotation. The existence of these instances indicates that *ge* in the post-verbal position has lost the capacity of marking referentiality. In other words, *ge* in the post-verbal position has been through a process of semantic bleaching. Since the 13<sup>th</sup> century, tokens of the [V *ge* X] pattern of telic and bounded aspectual meaning are found and the [V *ge* X] pattern of telic and bounded meaning emerges.

It has been demonstrated that the emergence of the [V *ge* X] pattern of aspectual meaning is a gradual process with series of steps along with the semantic bleaching process of *ge*. The semantic change of *ge* starts from the drop of the numeral *yi* ‘one’, so we can say the drop of numeral *yi* ‘one’ accelerates the development of post-verbal *ge* and eventually leads to the emergence of the [V *ge* X] pattern. This developing process also involves an emergence of another pattern, i.e. [*V<sub>say</sub> ge* X] of subjective meaning. So the whole process can be briefly illustrated below:

[V Num *ge* N] -> [V *ge* N] -> [V *ge* WH]->[V *ge* X] (aspectual meaning)

|

[V *ge* VP ]-> [*V<sub>say</sub> ge* X] (subjective meaning)

These two processes departed after the drop of the numeral *yi* ‘one’ and seem to develop separately. Chapter 6, within the construction grammar framework, focuses on the mechanism of the developing process of the [V *ge* X] pattern of telic and bounded aspectual meaning and demonstrates that these two processes are actually related.

## Chapter 6 Constructional Approach to the [V *ge* X] Pattern

### 6.1 Introduction

Chapter 4 has demonstrated various subtypes of the [V *ge* X] pattern and suggested that all these variants of this pattern designate bounded and telic events. In order to better understand the relationship between the aspectual meaning of the [V *ge* X] pattern and the classifier function of *ge*, a diachronic study was carried out in Chapter 5. Based on these two previous chapters, it is clear that it is difficult to separate the function of *ge* independently from its collocations, i.e. the preceding verb and its following elements. First of all, V and X together designate an activity and *ge* inserted in between functions over V and X together; second, as discussed in Chapter 5, the diachronic development of *ge*, from a classifier to a more grammatical marker, is closely related to a change in its collocational range; third, *ge* in the [V *ge* X] pattern is no longer a classifier because it does not have the individualizing function on the following elements and the dependency association between *ge* and X has changed. Thus, instead of investigating *ge* as an isolated word, it is proper to examine the features of the whole [V *ge* X] pattern. In other words, this research studies post-verbal *ge* from a different perspective, i.e. by considering the [V *ge* X] pattern as a construction. This chapter is devoted to the analysis of the [V *ge* X] pattern in a construction grammar framework and exploration of the development of post-verbal *ge* with its collocations in constructions. The next section first introduces construction grammar, including the definition of a construction and the properties of constructions. In addition, section 6.2 also addresses how to account for language changes with construction grammar based on Traugott and Trousdale (2013). After this, section 6.3 argues first that the [V *ge* X] pattern is a construction of telic and bounded meaning and this construction has several micro-constructions of shared properties. Section 6.4 analyzes the change of post-verbal *ge* in constructions and section 6.5 is a discussion regarding the details of the constructionalization.

## 6.2 An Overview of Construction Grammar

This section gives a brief introduction to the construction grammar and how to use constructional approach to study language changes.

### 6.2.1 Variants of the Construction Grammar

There are various versions of construction grammars following the general principles of cognitive linguistics. The term ‘construction grammar’ attracted the attention of linguists since Fillmore (1988), who developed this theory from Frame Semantics and Case Grammar. Fillmore and his colleagues started to use the theory of ‘Construction Grammar’ (a variant of construction grammars), also known as Berkeley Construction Grammar, to study ‘non-canonical’ grammatical patterns’ (Fillmore 2013:111), such as *let alone* (Fillmore, Kay, and O’Connor 1988)(Paul and Fillmore 1999), *what’s X doing Y* (Kay and Fillmore 1999). Their focus is on the internal structure of a construction (Croft and Cruse 2004: 265). They consider a construction to be ‘a partial description of a set of linguistic expressions’ and constituents are fitted in particular positions according to their features in a phrase by unification (Fillmore 2013: 112-113).

Sign-Based-Construction-Grammar (SBCG) is a developed theory of Construction Grammar and believes that a grammar is a set of signs (Boas and Sag 2012). In SBCG, a sign is an abstract concept with the properties not only involving the general description of the form and meaning, but also a detailed description of phonology, syntax, semantics (eg. meaning frame, index), and context (Michaelis, 2013:135). According to Sag (2012: 63), ‘SBCG models signs as feature structures’; a sequence of daughter signs (DTRS) (input) are able to construct a mother sign (MTR) (output) and the values for both of the mother features and daughter features are specified by a bigger unit of model objects of languages in SBCG, which is called a construct. Constructs are built up by signs following the rules licensed by constructions. Both Construction Grammar and SBCG are highly formal but they both consider that grammar is ‘constraint-based’ rather than ‘derivation-based’ (Fillmore 2013: 112, Sag, Boas and Kay 2012:14).

Lakoff (2008) and Goldberg (1995, 2006) work on a different constructional framework, called cognitive construction grammar in Croft and Cruse (2004), which is more functional

than Construction Grammar and SBCG. A construction, according to Goldberg (1995:4), is considered to be the basic unit of language. A phrasal pattern can be taken as a construction, as long as it is ‘a form-meaning pair’, and ‘some aspects of [its meaning] or some aspects of [its form] is not strictly predictable from [this construction]’s component parts or from other previously established constructions’ (Goldberg 1995: 4). Based on this definition, constructions are studied in terms of the relationship between their form and meaning, instead of focusing on one level of grammar. Furthermore, the definition also emphasizes that unpredictability is a necessary feature of a construction. In Goldberg (2006), she revised the definition of a construction and added that a construction can be a pair of form-discourse function as well. Moreover, she extended the range of construction to patterns that are fully predictable, as long as ‘they occur with sufficient frequency’ (Goldberg 2006:5). Similar to Construction Grammar and SBCG, cognitive construction grammar is about surface generalizations, unlike generative grammar which is about derivation. Goldberg (1995, 2006) argues that surface generalization is more powerful and broad and therefore various instances can be seen generated by one construction. Goldberg (1995, 2006) pointed there are different links between these instances, including polysemy links and inheritance links and all instances, constructions and links between them form a language network.

There is another framework related to construction grammar, cognitive grammar (Langacker 1987, 2008, 2013). Langacker (2013:3) states that the main task of cognitive grammar is to prove that ‘grammar is meaningful’. Different structures following the grammar can denote different meanings. These meanings are closely related to human cognition, in terms of how language users construe a situation. The same situation can be construed from different perspectives via different patterns of language expressions. as indicated in the previous chapter, (6.1a) and (6.1b) designate the same event from a different perspective.

(6.1) a. 他 刷 了 个 牙  
           *ta shua le ge ya.*  
           He brush ASP GE tooth.  
           He brushed teeth.

b. 他 刷 了 牙  
      *ta shua le ya.*  
      He brush ASP tooth.  
      He brushed teeth.

(6.1a) is an instance of [V *ge* X] pattern designates a telic bounded teeth- brushing event; (6.1b) without *ge* designates an action of tooth- brushing occurred in the past. Thus, as Goldberg (2006:9) pointed out, different surface forms are related to different semantic/discourse functions which reflecting ‘subtle aspects of the way we construe the world’. Cognitive grammar also studies language structures altogether with their meaning. In this sense, Croft and Cruse (2004) categorize cognitive grammar as a variant of construction grammar.

All these construction grammars agree that a construction is a form-meaning/function pair which is constraint-based. This research adopts Goldberg (2006)’s constructional approach to study post-verbal *ge* in constructions, and at the same time links constructions involving *ge* by using Langacker (1987, 2008, 2013)’s cognitive grammar. In this thesis, the details of a construction are normally represented in a basic template, as [[F]<- -> [M]]. F stands for Form, especially the syntactic form of a construction and M is for Meaning, including semantic properties and discourse function of a construction. The double headed arrow according to Traugott and Trousdale (2013: 8) is adopted from Booij (2010) to specify the form-meaning link. The external brackets signify that the form-meaning pair is a unit.

## 6.2.2 Properties of constructions

In this sub-section, based on the recent definition of construction revised by Goldberg (2006) as well as other relevant research, some properties of constructions, including analyzability, compositionality, size, schematicity and productivity, are introduced.

The definition of the construction states that the meaning of a construction, to a certain degree, cannot be completely interpreted as the combination of its components’ meanings. Therefore, words are constructions, as agreed by Goldberg (1995, 2006) and Croft (2001), since meanings and forms of words are paired arbitrarily (Saussure 1916). But unlike lexical constructions, the internal structures of phrasal constructions may be analyzed according to lexical rules. In other words, the surface form of a construction can reflect its semantic structure. For example, in English, the expression *lend a hand* as a whole means ‘to help’, but its internal connections between each component are still clear. The verb *lend* as a predicate takes the NP *a hand* as its direct object. Furthermore, following the lexical rules, this expression can be further expanded and the verb *lend* can take another complement as its



indirect object, like *lend someone a hand*. In (6.1), *shua ge ya* ‘brush ge tooth’ as an instance of the [V ge X] pattern, can be analyzed as a predicate + object structure, and this expression can also be extended as *shua ge wufenzhongde ya* ‘brush ge five minutes tooth’ by adding a modifying temporal phrase. This also misleads some researchers to believe that *ge* in this structure is still a classifier as part of the object NP. In spite of the transparency of the surface form, the meaning ‘to help’ is not immediately accessed by the lexical composition rules in *lend a hand*. Similarly, the telic and bounded event meaning is not predictable from predicate + object structure of [V ge X]. According to Bybee (2010: 45)’s interpretation, for expressions such as *lend a hand*, *shua ge ya* ‘brush ge tooth’, language users’ are able to recognize their individual words and morphemes as well as their morphosyntactic structures. In other words, these expressions still maintain their **analyzability**. On the other hand, since the meanings of these expressions as a whole, cannot be completely predicted by combining the meanings of the components following the lexical rules, so that the expressions’ **compositionality** is weak. It does not mean that constructions are noncompositional completely, but as emphasized by Goldberg (1995:16), the meaning of an expression is ‘the result of integrating the meanings of the lexical items and the meaning of constructions’. Especially in Goldberg (2006), compositional patterns, such as argument structure, are constructions as well. However, even in compositional constructions, the interpretation of a sentence is not completely based on the meaning of the specifications of verbs, as constructions constrain the interpretation of the role of each argument. Analyzability and compositionality as two important properties in construction grammar are independent. As indicated in the above examples, compositionality can be reduced while analyzability is still transparent. It is also possible for an expression to be lacking both compositionality and analyzability, such as *by and large* in English. In addition, for the same construction, different instances demonstrate various levels of analyzability and compositionality. For example, with the [V ge X] construction, in its [V ge non-N] variant (6.2), unlike the [V ge N] variant (6.1a), the non-nominal elements indicates the endpoint of the event designated in this construction instead of the object of the predicate. Thus, the [V ge non-N] pattern is less analyzable than [V ge N]. Moreover, since the endpoint of the event is overtly expressed by the non-nominal elements following *ge*, the telic and bounded meaning of the [V ge non-N] pattern is easier to construe than the [V ge N] pattern. In other words, [V ge N] is less compositional than [V ge non-N].

- (6.2) 他 吃 了 个 饱  
*ta chi le ge bao*  
 he eat ASP GE full.  
 He ate till full.

In some instances of [V *ge* X], such as (6.3), it is low in both analyzability and compositionality.

- (6.3) 他 要 探 个 究竟。  
*Ta yao cha ge jiuqing.*  
 He wants explore GE after-all.  
 He wants to check it out.

Thus, different instances of the [V *ge* X] pattern show various degrees of analyzability and compositionality. The gradience of analyzability and compositionality will be discussed later in this chapter.

As mentioned above, as a unit of language, a construction can be atomic, such as a word, or complex such as a phrasal expression or an idiom. Similar to analyzability and compositionality, the **size** of a construction is also not unified but gradient. According to Bybee (2010:45), the size of a construction, or in other words, the size of a language unit recognizable by the language users, depends on the process of chunking and the trigger of chunking is repetition. If some words are frequently used together, they can be stored as a unit of language as in the case with single words. Then, these chunks further build up larger chunks and form a hierarchical organization of language. In this sense, a construction can be considered as a result of chunking through repetition. For instance, in (6.3), post-verbal *ge* is repetitively used with the word *jiuqing* ‘after-all’. *Jiuqing* ‘after-all’ as an adverb is typically used in the pre-verbal position. As shown in the CCL corpus, there are 770 tokens of *jiuqing* found in the post-verbal position, and in 490 of these instances, *jiuqing* is used collocating with *ge*. So [V *ge jiuqing*] can be recognized as a chunk, because of the high frequency. Since chunking is a process based on language users’ experience (repetitive use), thus, the immediate chunks recognized by language users are concrete expressions. For instance, based on the corpus study of the [V *ge* X] construction, *xi ge zao* ‘wash *ge* shower/ bath’ is one of the most frequent tokens. Therefore, this expression may be stored as a chunk by the language

user. Goldberg (2006:98) pointed that language users have ‘generalized or schematic knowledge’ about specific expressions. Thus, similar instances of post-verbal *ge* followed by non-referential NP with telic and bounded aspectual meaning are abstracted as [V *ge* NP]. Traugott and Trousdale (2013: 15) mentioned that language users tend to ‘overgeneralize and extend the boundary of a construction’, which may initiate linguistic change. Thus, instances such as (6.2) and (6.3) are all grouped with [V *ge* N] and they are generalized as [V *ge* X] with telic and bounded aspectual meaning. This process implies that a schematic construction is generalized from less schematic constructions. For instance, in this research, the construction [V *ge* X] is abstracted from the micro-constructions [V *ge* NP], [V *ge* VP], [V *ge* Clause], etc. and each micro-construction is generalized over more specific tokens, termed as ‘constructs’ following Traugott and Trousdale (2013). Thus, a construction/ schema altogether with its micro-constructions and specific constructs form a taxonomic set and different levels of this set present different **schematicity** as shown below:

Schema >Subschema> Micro-construction > Construct

The above hierarchy of constructions follows Traugott and Trousdale (2013) because these terms are ‘a heuristic for description and analysis of constructional change’ (Traugott and Trousdale 2013:16).

Similar to the other factors of constructions, schematicity of a construction shows gradience between different levels of construction schemas. A schema is a highly schematic construction but it is not necessary to be fully schematic (Traugott and Trousdale 2013: 12). A sub-schema is less schematic, such as [V *ge* non-N] in this research. Micro-constructions are more specific than the schema and sub-schema, such as [V *ge* Adj.] and [V *ge* four-character-idiom] are variants of [V *ge* non-N]. Constructs as mentioned above, are the most specific representation of a construction, i.e. tokens or instances used by speakers. At the same time, at the same schematic level of a construction, all less abstract members are not sanctioned by the superschema in the same way. For example, the Chinese classifier construction, briefly represented as [[Num+ CL+ Noun] <-->[Quantification, Categorization]] sanctions constructs in which the nouns are referential (6.4a), but at the same time, this schema also sanctions some marginal constructs in which nouns are less referential (6.4b).

- (6.4) a. 他 买 了 三 个 苹果.  
*ta mai le san ge pingguo*  
 He buy ASP three GE<sub>cl</sub> apple.  
 He bought three apples.
- b. 他 换 了 (一) 个 工作  
*ta huan le (yi) ge gongzuo.*  
 He change ASP (one) GE<sub>cl</sub> job.  
 He changed a job.

The Chinese classifier construction does not sanction (6.4a) and (6.4b) in the same way, because in (6.4b), the noun following the classifier is less specific and does not fit in the slot as ‘well’ as the referential noun in (6.4a). At the same time, (6.4b) with a less referential NP does not have a strong quantification meaning but similar to the [V *ge* X] construction denotes a telic and bounded aspectual meaning. However, the internal structure of (6.4b) is ambiguous. It can be considered as partially sanctioned by the [V *ge* X] as well. This point will be analyzed in detail in the later section.

The [V *ge* X] construction with telic aspectual meaning is a partially schematic construction since in this construction, *ge* is specific and cannot be replaced by other words. But in this construction, the X slot can be filled with words of various categories, such as nouns, adjectives, verbs, etc. This suggests that the [V *ge* X] schema can sanction more types than its micro-constructions. In other words, [V *ge* X] is more **productive** than [V *ge* N] and [V *ge* Adj.]. Productivity is also an important property of constructions which is closely associated with schematicity (Kay and Fillmore 1999) and in this research, this term is viewed in accordance with Traugott and Trousdale (2013), as gradient. As mentioned in Traugott and Trousdale (2013: 17), productivity is about to what extent a schema ‘sanction other less schematic constructions and to what extent ‘[schemas] are constrained (Boas 2008)’. For example, as discussed in Chapter 4, the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] micro-construction has a constraint on V<sub>2</sub>, i.e. only a few verbs are attested in the pattern. By contrast, the [V *ge* N] micro-construction has fewer constraints on the V and N slots. In other words, [V *ge* N] is able to sanction more constructs and is more productive. Kay and Fillmore (1999) regarded schematicity and productivity similar in the sense that the more schematic a construction is, the more productive it is. In other words, if a construction is very schematic, it has a wide

coverage of more specific constructs and thus, the construction has high productivity. But in addition to generality (Barðdal 2008) productivity also involves regularity and extensibility, which distinguish this productivity from schematicity. Barðdal (2008) mentioned that if a pattern is a regular form, it is highly likely to be general and extensible to new or existing items in the language. But an extensible pattern is not necessarily general. Thus, she concluded that generality and regularity can be seen as ‘the derivatives of extensibility’ of productivity. In other words, extensibility is the core concept of productivity while schematicity is more about generality. Since extensibility of a construction is related to the number of types it can host, type frequency is directly related to the productivity of a construction. Higher type frequency of a construction predicts higher productivity (Barðdal 2008, Bybee 2012). The increased use of a construction and creating new constructs of the construction suggest the productivity of the construction is increased.

In this research, due to the limitation of the corpus, there is no specific statistic analysis on the change of frequency of the construction or constructs. The increase of type frequency is also related to the increase of collocational range or host-class expansion (Himmelmann 2004). The wider the host-class a construction has, the higher type frequency the construction has and therefore, the construction is more productive and tends to undergo semantic change. High productivity co-relates with high generality. If the productivity of a construction is increasing, the construction is able to sanction more constructs and the semantics of the construction is likely to be more general. For example, as described in Chapter 5, the host-class of post-verbal *ge* as a classifier in the 10<sup>th</sup> century expanded and it started to collocate with non-referential nouns. The classifier construction with *ge* in the post-verbal position becomes more productive. Post-verbal *ge* without numerals is undergoing semantic bleaching. When post-verbal *ge* started to collocate with non-nominal phrases, the construction is transforming. This will be further discussed in section 6.4.

### **6.2.3 Constructional Approach to Language Change**

Language change is gradual and the emergence of a new construction involves steps of changes. According to Traugott and Trousdale (2013: 1), there are mainly two types of changes concerned in a constructional view of language change. One is the change that ‘affect features of an existing construction’ and the other is the creation of a form<sub>new</sub> –meaning<sub>new</sub>

pair. The first type of change is referred to as constructional change and these changes occur during language use. Each change of meaning or form to an existing construction is considered as a constructional change, and it does not involve a creation a new construction. However, successions of constructional change may lead to the emergence of both new semantics and new morphosyntax of the existing construction and therefore the second type of change, constructionalization occurs. According to the definition from Goldberg (2006), constructions are form-function pairs and the previous section has pointed constructions of different forms and meanings are regarded as distinct constructions. In this sense, the most significant distinction between these two types of changes, i.e. constructional change and constructionalization, is if the change involves the creation of a  $\text{form}_{\text{new}}$  –  $\text{meaning}_{\text{new}}$  pair. For example, in Chapter 5, the initial host-class expansion of *ge* in the early 7<sup>th</sup> century (*ge* is found to collocate with nouns which have their specialized classifier) is a constructional change affecting the *ge* micro-construction sanctioned by the more general Chinese classifier construction. After several steps of constructional changes (like host-class expansion and semantic bleaching) to this micro-construction, post-verbal *ge* is found collocated with non-nominal phrases in the late 9<sup>th</sup> century and the original construction cannot fully sanction these expressions, which suggest that a  $\text{form}_{\text{new}}$  –  $\text{meaning}_{\text{new}}$  pair emerges and constructionalization occurs.

Constructionalization and constructional changes are also closely associated. A succession of constructional changes leads to the emergence of a new construction and incur constructionalization. Traugott and Trousdale (2013:27) refer to these constructional changes as ‘pre-constructionalization constructional changes’ (PreCxn CCs ). On the other hand, when a new construction is formed, it is possible for it to undergo further constructional changes, such as the host-class expansion, pragmatic expansion or semantic bleaching. These constructional changes are accordingly referred as post-constructionalization constructional changes (PostCxn CCs). At the same time, PostCxn CCs are also leading to another possible constructionalization, and therefore these PostCxn CCs are PreCxn CCs of the other constructionalization. It can be presented in Figure 6.1.

*Fig 6.1 Sequences of language changing*

PreCxn CCs<sub>1</sub> -> Constructionalization<sub>1</sub> ->

PostCxn CCs<sub>1</sub> / PreCxn CCs<sub>2</sub> -> Constructionalization<sub>2</sub> ->...

For example, the host-class expansion of classifier *ge* in the post-verbal position in the early 7<sup>th</sup> century is a constructional change and it together with other constructional changes lead to the constructionalization of [V *ge* X] with aspectual meaning. Then, [V *ge* X] has undergone further PostCxn CCs such as pragmatic expansion. Then these PostCxn CCs lead to other constructionalization. This process will be explained in full detail in section 6.4. Thus, constructional changes and constructionalizations interact and form a recursive process and motivate sequences of language changing.

The interaction between constructional changes and constructionalization does not demonstrate how language changes, in other words, the mechanism of language changes. Following Traugott and Trousdale (2013: 36), the two major mechanisms of changes are neoanalysis borrowed from Andersen (2001) ('reanalysis' in other works of grammaticalization, such as Langacker (1977), Hopper and Traugott (2003)) and analogization ('analogy'). Neoanalysis, according to Traugott and Trousdale (2013:36), is considered as a 'micro-step in constructional change'. It can be neoanalysis of either meaning or form. For example, in this research, the formation of [V *ge* X] involves a syntactic detachment of *ge* from its following non-nominal phrase, which can be regarded as syntactic neoanalysis. Then, this shift results in the individualization meaning of *ge* functioning over the event designated by the whole construction, instead of functioning on the element following *ge*. Thus, a semantic neoanalysis is involved and a new construction is created. As to the analogization, as another mechanism of language change, this is about pattern matching. To be more specific, analogization creates form – meaning pairs that do not exist before by matching them with existing exemplars of construction sets (Traugott and Trousdale 2013:37).

During these changes, all the factors of constructions discussed in section 6.2.2 are not static either. As mentioned above, analyzability, compositionality, size, schematicity and

productivity of a construction are all gradient and in fact, they are changing over time accompanying with constructionalizations and constructional changes. For example, in the *be going to* pattern at the beginning, ‘go’ designates the motion and ‘to’ indicates direction and the whole expression is clearly analysed as a whole unit indicating futurity, as in [[be going to]+VP]. At this time, its analyzability and compositionality both decrease. Due to the high frequency of use, this construction becomes more autonomous and is undergoing phonological reduction, i.e. [be gonna] an instance of a further set of PostCxn CCs. Thus, the size of the construction changes as well. The high frequency of use also suggests the high productivity of this construction.

To sum up, a succession of constructional changes leads to constructionalization which creates new constructions. At the same time, during these changes, certain properties of a construction, such as analyzability, compositionality, size, schematicity and productivity, are changing accordingly.

In this sense, the constructional approach can help describe a comprehensive and dynamic picture of language changing. The following sections will make use of the constructional approach to analyse changes affecting the [V *ge* X] construction with telic aspectual meaning in detail.

### 6.3 [V *ge* X] as a Construction

As reported in Chapter 4, the [V *ge* X] pattern is a generalization of several variants, such as [V *ge* N], [V *ge* Adj.], [V *ge* Chinese- four- character- idiom], [V *ge* Clause], etc. All these instances share some semantic properties. They all designate telic and bounded events and the events are referential and uninterruptable. In addition, most of these variants designate irrealis events. The [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern has a realis interpretation and as analysed in chapter 4, the meaning enables the bounded and telic meaning of the pattern and is possibly resulted from the negation on V<sub>2</sub>. This section discusses features of [V *ge* X] within the construction grammar framework and follows Goldberg (1995, 2006) to argue that [V *ge* X] of the aspectual function is a distinct construction.



### 6.3.1 The Existence of [V ge X] Construction

Following the definition and features of construction introduced in the previous section, it is necessary to show that some semantic aspects or some syntactic aspects of [V ge X] are not strictly predictable from its component parts or from other previously established constructions, i.e. Chinese classifier construction. First, the construction contributes to the meaning of its constructs, instead of simply a combination of meanings of the lexical items involved.

- (6.5) 他 给 汽车 加 了 个 油。  
*Ta gei qiche jia le ge you.*  
He give car add ASP GE petrol.

He fuelled the car.

(6.5) designates an event of adding petrol to the car and implies the car ended up with sufficient petrol or at least he added the desired amount of petrol to the car. It cannot mean that he added a drop of petrol in which *ge* functions as a specifier of petrol; nor can it mean that he added petrol but not enough for the car to work. *Jiayou* ‘add petrol (fuel)’ as a splittable V-O compound does not necessarily imply the completion, as demonstrated in (6.6).

- (6.6) 他 给 汽车 加 了 油, 但是 没  
*Ta gei qiche jia le you, danshi mei*  
He give car add ASP petrol, but not  
加 够。  
*jia gou.*  
add enough.

He added petrol to the car, but not enough.

Compared with (6.6), (6.5) designates a complete event, but (6.6) only denotes an action which can be incomplete in terms of the naturally expected outcome, i.e. the car has enough petrol to work. Therefore, (6.5) has an endpoint but (6.6) does not. This additional telic and bounded meaning is not predictable directly from either of *jiayou* ‘add petrol’ or *ge*, but from the pattern, or to be more accurate, the construction.

In addition to the [V ge N] micro-construction instantiated in (6.5), other micro-constructions of [V ge X], share similar constructional meaning. As in (6.7).

- (6.7) a. 她 要 问 个 水落石出。  
*Ta yao wen ge shuiluoshichu.*  
 She want ask GE water.fall.stone.out.  
 She wants to straighten up the whole matter.
- b. 他 喝 了 个 烂醉。  
*Ta he le ge lanzui.*  
 He drink ASP GE rotten-drunk.  
 He drank to oblivion.
- c. 这 一 回 的 遭遇, 一定 要  
*zhe yi hui de zaoyu, yiding yao*  
 this one time ASSOC. confront, must want  
 较 个 长短。  
*jiao ge changduan.*  
 compare GE long.short.

This time, we have to compete against each other.

In (6.7), all instances of post-verbal *ge* are followed by non-nominal constituents. In (6.7a), *ge* is followed by a Chinese four character idiom; in (6.7b) and (6.7c) *ge* is followed by a predicative adjective and an adjective phrase, respectively. As analyzed in Chapter 4, these different types of constituents following *ge* all denote resultant states of the action designated by the preceding verbs and unlike descriptive expressions following *de* as the secondary predicate, these constituents mark the endpoint of the event designated by the preceding verbs. To be more specific, the action designated by the verb has to stop once the state denoted by the constituent following *ge* is reached and it is not an intermediate interruption. Instances in (6.7) denote outcomes of actions designated by the preceding verbs explicitly and imply that the action will stop once the expected (6.7c) or ultimate ((6.7a), (6.7b)) result degree is reached. Thus, it is similar to the meaning denoted in (6.5) which imply an outcome or endpoint of the action designated by the verb. This event delimiting meaning is not predicable from the constituents following *ge*, because its [V *de* Adj.] counterpart lacks this interpretation. Therefore, the telic and bounded reading of (6.7) is denoted by the construction as well. In addition, (6.7a) and (6.7c) both designate events in the deontic mood, which have not occurred. Although (6.5) and (6.7c) designate events occurred in the past, they are

actualized by the aspectual marker *le*, as argued in Chapter 4. So a common meaning of [V *ge* X] can be generalized as follows:

*[V ge X] designates an individualized event which has to be completed in the future, and therefore the event is telic and bounded and in the irrealis mood.*

In addition to non-predictable meaning, according to the definition of a construction given by Goldberg (1995), a construction can also be identified by the non-predictable aspects of its form. A construction has a non-predictable form if it cannot be sanctioned or explained by more general and entrenched syntactic rules. In (6.7), it is impossible to determine the part of speech of all the components. If *ge* is recognized as a classifier, it is hard to categorize its following adjectives and adjective phrases, for classifiers in Chinese are used to specify nouns. In other words, instances in (6.7) cannot be sanctioned by the more general rule of Chinese classifier phrase and thus, they are non-predictable in form as well.

### 6.3.2 Representation of [V *ge* X] Construction

Despite this common construction meaning, micro-constructions of [V *ge* X] have their own specific meanings, as indicated in Chapter 4. As demonstrated in (6.7), X is not an argument role entailed in the lexical semantics of the verb. Instead, X is profiled by the constructional meaning. The endpoint is overtly expressed by X which describes a resultant state. According to the interpretation above, (6.7c) denotes the endpoint in a slightly different way compared with (6.7a) and (6.7b). X in (6.7a) and (6.7b) indicate a fixed endpoint but the adjective phrase in (6.7c) predicates two possible resultant states and one of them has to be reached in order for the action designated by V to cease. Despite this, the adjective phrase following *ge* in (6.7c) still denotes the endpoint of the event overtly by a construction selected argument.

In [V<sub>1</sub> *ge* V<sub>2</sub>] variant, V<sub>2</sub> denotes the endpoint of the event designated by V<sub>1</sub>. V<sub>2</sub> is not a required constituent by the verb but an obligatory part in the construction. In Chinese, adjectives and adjective phrases can function as predicate directly without linking verbs so they are predicative as verbs and verb phrases. In addition, the category boundary between AP and VP is always ambiguous. In this sense, [V *ge* AP] (including all variations exemplified in (6.7)) and [V<sub>1</sub> *ge* V<sub>2</sub>] can be generalized as [V *ge* VP] together. On the other hand, in [V *ge* N], V and N are typically considered as the main verb and its object or at least parts of a splittable V-O compound. So the endpoint denoted by [V *ge* N] is suggested by neither V nor

N but most attributed to the construction. In order to make the distinction more clearly, [V *ge* VP] and [V *ge* N] are represented based on Goldberg (1995)'s convention in figure 6.2 and 6.3, respectively.

Figure 6.2 [V *ge* VP] construction

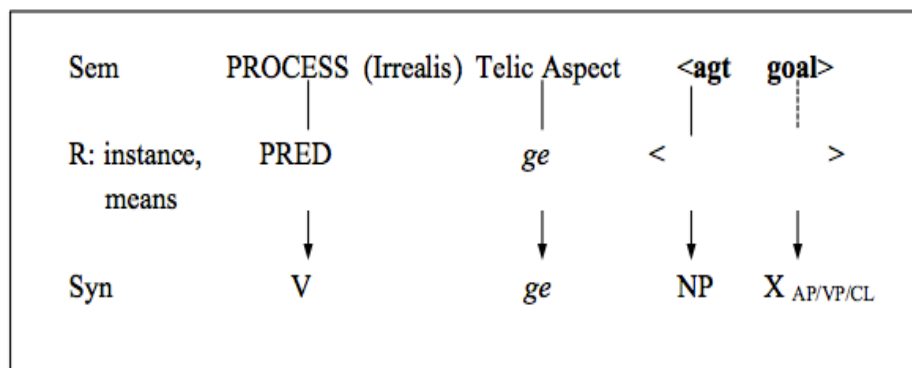
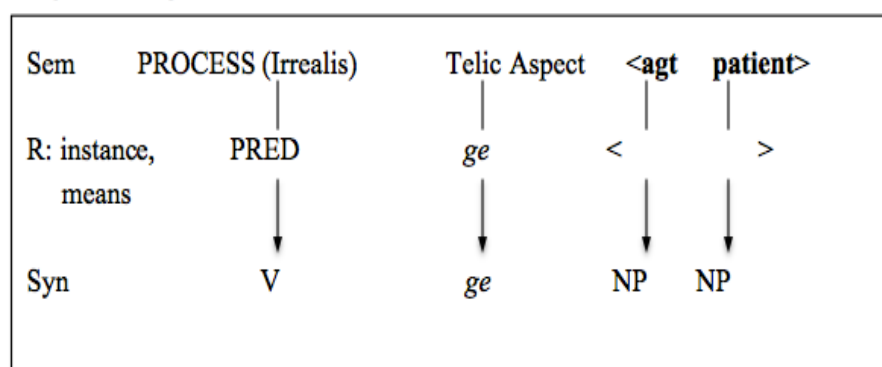


Figure 6.3: [V *ge* N]



According to the Figures, the semantics associated with both micro-constructions is a process of telic aspect, and this is also the general semantics of the [V *ge* X] construction. As analyzed in Chapter 4, *ge* is not a classifier in either of these contexts, since it has an individualization function over the whole construction. Furthermore, *ge* is not attached to either the preceding verb or the following elements, and as the only specified sign in this [V *ge* X] construction, *ge* is listed separately to signify its contribution to the telic aspect meaning of the construction. In Figure 6.2, the [V *ge* VP] micro-construction has two participant roles, agent and goal, which are grouped by pointing brackets. Goal is the resultant state overtly expressed and licensed by the construction. In Figure 6.3, [V *ge* N] has two

roles, labelled as agent and patient. PRED is a variable which is filled by a particular verb. If the participant roles of the construction can be fused with the roles of the verb, they are linked by solid lines but if a role of the construction is not obligatorily fused with any role of the verb, it is indicated by a dashed line as in Figure 6.2. Here the concept of fusion, in accordance with Goldberg (1995:50), means the semantic constraints on the verb's argument roles are matching the constraints on the construction's roles. R symbolizes how the verb integrates into the construction, such as the verb designates an event which is a subtype of the event designated by the construction. The syntactic properties of the construction are represented by arguments' syntactic categories (i.e. NP, VP) instead of their function (i.e. Subject, Object). The main reason for making this change is to emphasize the observed constraints of the construction.

In Figure 6.3 the NP in [V *ge* N] is conventionally considered as the object of V, including collocational objects in idiomatic VPs. Thus, the NP as a patient argument in the [V *ge* N] micro-construction is required by the verb. As Noël (2007: 67) commented, Goldberg's model can be potentially considered as a symbolic valency pattern. Valency or valence is a term traditionally associated with the syntax of verbs as Tesnière used in his *Éléments* (1959) (Matthews 2007: 3). The recent research on valency is not only about formal valency structure, such as complements of verbs but also involve the valency patterns concerning the semantic roles and processes (Götz-Votteler 2007: 37). So for the instance of [V *ge* N] in (6.5) above, the verb *jia* 'add' requires essentially two valencies, the subject 'agent' who performs the action (*ta* 'he') and the object 'patient' that is added (*you* 'oil'). According to (6.5), there is another less central valency, *qiche* 'car', indicating where the oil is added. This less central valency is not created by the syntactic structure of the verb; instead, it exists as a semantic valency. Since *jiayou* 'add oil' in (6.5) is an idiomatic VP, the less central valency is not obligatory in the sentence structure. So, as shown in (6.5), *qiche* 'car' is an oblique object introduced by a preposition *gei* 'for'. As indicated in Figure 6.3, in the [V *ge* N] construction, V and N together designate a whole event which is marked by *ge* as telic and bounded; thus, N fills the valency of the construction as well as the valency of the verb.

It is more helpful to use the term 'valency' to explain the internal structure of the [V *ge* VP] micro-construction, as represented in Figure 6.2. According to Götz-Votteler (2007: 38), syntactic valency is 'directly determined by the verb meaning'. As indicated above, the

valency pattern in a construction can be considered as an indirect reflection of the constructional meaning as well. In Figure 6.2, the meaning associated with the [V *ge* VP] construction specifies two essential valencies, a subject ‘agent’ and a secondary predicate as a ‘goal state’. The ‘goal state’ is not an obligatory argument of the verb but it is a valency created by the construction. In [V *ge* VP], VP marks the endpoint of the event designated by the V and thus is obligatory in this construction. Based on the meaning of this construction, the valency filled by VP becomes a central valency and the valency of V becomes peripheral in the construction. In most instances, the verbs used in this construction are transitive verbs. That means the valency patterns of the verbs involve two participants. In the [V *ge* VP], the object ‘patient’ of the verb becomes peripheral and oblique. As in (6.7a) and (6.7b), the verb *wen* ‘ask’ and *he* ‘drink’ are transitive verbs but their objects are omitted. According to Goldberg (1995), these verbs’ objects are not expressed at this locus because these objects either can receive a definite interpretation in the context such as (6.7a) or refer to identities which are irrelevant in the expression, such as (6.7b). But in other instances, when the object of the preceding verb has to be overtly expressed, it has to be marked in the construction, such as (6.8a) and (6.8b).

- (6.8) a. 大 火 在 一 两 分钟  
*da huo zai yi liang fenzhong*  
 big fire in one two minute  
 就 把 舱内 所有 的 氧气  
*jiu ba cangnei suoyou de yangqi*  
 at.once BA cabin all NOM. oxygen  
 耗 个 精光.  
*hao ge jingguang.*  
 consume GE completely

The big fire consumed the oxygen in the cabin completely within one or two minutes.

- b. 猪 羊 吃 个 光, 牛 驴  
*zhu yang chi ge guang, niu lu*  
 pig sheep eat GE clean, cow donkey  
 牵走 了 多 一半.  
*qianzou le duo yiban.*  
 pull ASP more half.

(They) ate all the pigs and sheep and took away most of (our) cows and donkeys.

Some counterexamples are found in which there are pronouns following V in [V *ge* VP], such as (6.9).

- Zhangsan beat him (until he was injured) badly

- When confronted with these enemies, we need to attack before they get prepared.

In (6.9a), the pronoun *ta* ‘him’ refers to someone not *Zhangsan* who was beaten badly and follows the verb which is the governor. These instances are very rare and only pronouns, such as *ta* ‘he/she’, *ni* ‘you’ are found retained in this position in the construction. These pronouns cannot appear between *ge* and its following  $V_2$ . Unlike (6.9a), the pronoun *ta* ‘him’ in (6.9b) is a dummy object that does not have any referential function. It does not refer to *diren* ‘enemy’ because they do not agree in number. Furthermore, this pronoun in (6.9b) is also unstressed. According to Fillmore (2007: 146), a dummy subject is a ‘syntactic place-holder’ that occupies the ‘well-defined syntactic positions relative to the governor’. The pronouns following V in (6.9) can be analysed in this fashion, too. But in (6.9a), the pronoun is referential and is assigned the patient role by the preceding verb; in (6.9b), the pronoun is not assigned any semantic role. In the [V *ge* VP] construction, as analyzed above, the meaning of the construction does not involve the valency of the object of the V. So instances like (6.9a) can be considered as a combination of the valency patterns of the verb and the construction. As to (6.9b), the dummy pronoun is simply a meaningless syntactic valency filler. According to Yeh (2006), this dummy pronoun also appears in the [V *ge* N] construction, in which the syntactic valency of the verb has been filled by N. That is to say, the dummy pronoun in [V *ta ge* N] is not a syntactic valency holder even. Researchers such as Wu (2003) and Yeh (2006) argued that the dummy pronoun in the [V *ge* X] construction is a discourse marker. Based on the analysis, the valency patterns of the [V *ge* X] construction are determined by the meaning of the construction. The verb’s valency pattern has to be compromised if it cannot completely match the construction.

The [V *ge* VP] sub-schema and the [V *ge* N] sub-schema represented in Figure 6.2 and Figure 6.3 can sanction most instances of the [V *ge* X] construction except [V<sub>1</sub> *ge* Neg V<sub>2</sub>] exemplified in (6.10).

- (6.10) 雨 下 个 不 停。  
           *yu xia ge bu ting.*  
           rain drop GE not stop.

It rained constantly.

As discussed in Chapter 4, [V<sub>1</sub> *ge* Neg V<sub>2</sub>] can be seen as a subtype of [V *ge* VP] in the sense that endpoint denoted by the VP is negated. The negation operates on V<sub>2</sub>, and the subject ‘agent’ of V<sub>1</sub> as well as V<sub>1</sub> is outside the scope of negation. According to Langacker (2008, 2013), it is impossible to negate the ending of an action unless the action has been mentioned



in the previous discourse or perceived by the speaker. So it is impossible to negate the end of raining unless the raining has occurred or is occurring. This also explains the realis reading on the  $[V_1 \text{ ge Neg } V_2]$  micro-construction even without the aspect marker *le*. The negated  $V_2$  invites the inference that the result situation continues but it does not affect the telic and bounded reading on the  $V_1$ . According to Smith (1997: 91), the ‘inference of Continuing Result’ is typically used in ‘inceptive sentences’. Implied from the meaning of  $V_2$ , whose fillers are typically restricted to verbs of ceasing, such as *ting* ‘stop’ and *wan* ‘end’, the  $V_1$  denotes the beginning of the action and  $V_2$  denotes the end of the action. By negating  $V_2$ ,  $[\text{Neg} + V_2]$  designates the continuing result. *Ge* in this micro-construction enables the telic and bounded reading of the action designated by  $V_1$  and therefore emphasizes the inceptive meaning. In this sense, *ge* functions mainly over  $V_1$  unlike the other  $[V \text{ ge } X]$  micro-constructions, in which *ge* functions over the whole expression. As discussed in Chapter 4, telicity and boundedness embody the viewpoint of the speaker and neutrally emphasize the focus of the perception. Since in the  $[V_1 \text{ ge Neg } V_2]$  micro-construction, *ge* marks the telic and bounded reading on  $V_1$ , the action designated by  $V_1$  is of interest as in the series of events in the context (Smith 1997:91).

The reason for classifying  $[V_1 \text{ ge Neg } V_2]$  as a sub-type of  $[V \text{ ge } VP]$  is that  $\text{Neg } V_2$  and  $V_2$  in the latter fulfil the same construction valency, which following *ge* indicates the resultant state of the event. In addition, in  $[V \text{ ge } VP]$ , when  $VP$  is a predicative  $\text{AdjP}$ , it can also be regarded as designating a continuing resultant state of the patient of the  $V$  which can be underspecified. In  $[V_1 \text{ ge Neg } V_2]$ ,  $V_1$  is typically intransitive and the negated  $V_2$  denote the resultant state of the event initiated by the action designated by  $V_1$ ; moreover, by negating  $V_2$  (verbs of ceasing), the continuing reading is emphasized.

Based on the analysis above, the valency patterns of the  $[V \text{ ge } X]$  construction is determined by the meaning of the construction and the verb. The valencies of the construction are associated with certain grammatical categories as indicated in Figure 6.2 and Figure 6.3. In the Chinese language, one surface syntactic structure may be categorized into different grammatical categories due to the ‘hidden complexity’ in Chinese (Bisang: 2010: 245). Thus, the lexical items in the  $[V \text{ ge } X]$  construction are assigned the function to given the valencies or slots they appear. So the next subsection analyzes a case to illustrate this point according to the representation of the  $[V \text{ ge } X]$  construction.

(6.11) is a construct of the [V *ge* X] construction and X is filled by a lexical item which is typically categorized as an adjective, *xinxian* ‘fresh’.

(6.11)	咱们	尝	个	新鲜。
	<i>zanmen</i>	<i>chang</i>	<i>ge</i>	<i>xinxian</i> .
	we	taste	GE	fresh.

Let's try this new taste. / Let's try this new product.

Unlike the VP in the [V *ge* VP] subschema, *xinxian* ‘fresh’ does not indicate the endpoint of the event designated by the preceding verb. Instead, it is an argument specified by the verb, which means things that is fresh or new by metonymy. As discussed in Chapter 2, the nominalized meaning of *xinxian* ‘fresh’ is not from *ge* but by the slot in the construction *xinxian* ‘fresh’ occurs. So based on the meaning denoted by the expression, (6.11) is an instance of [V *ge* N] rather than [V *ge* VP]. The predicate verb *chang* ‘taste’ here is a transitive verb associated with both an agent participant and a patient one. *Xinxian* ‘fresh’ in this instance does not denote attributes or properties but denotes a type of entities with the property of freshness. So this lexical item in this constructional context is changed from an adjectival item to a nominal item. In other words, the lexical item in a construction is assigned the constraints of the slot it appears. The slots in the construction have a coercive function (c.f. Michaelis 2004) and clarify the specific grammatical category and function of a lexical item in the expression. Since the Chinese language lacks morphological markers, the grammatical functions of a lexical item can be clarified by considering it in a construction. This is also a benefit of the analyzing the Chinese language in the construction grammar account.

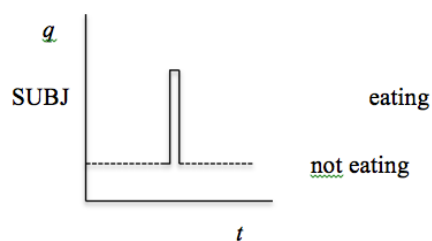
### 6.3.3 Relating Sub-constructions

So far, all types of the [V *ge* X] construction have been grouped into two subschemas, [V *ge* N] and [V<sub>1</sub> *ge* V<sub>2</sub>]. The construction meaning of [V *ge* X] designates a telic and bounded event in irrealis mood and both subschemas are linked to this core sense. The telic and bounded meaning of [V *ge* X] as discussed in previous chapters is an extension of the individualizing function of *ge*. As analyzed in Chapter 4, [V *ge* N] and [V<sub>1</sub> *ge* V<sub>2</sub>] designate telic events in different ways and it is in fact that *ge* individualizes events in different ways.

According to Langacker (2008, 2013: 147), telic and bounded events are ‘internally heterogeneous involving some kind of change through time’ and the change can be ‘observed in the situation described’. So the event structures and their semantic properties are complex. Furthermore, as Croft (2001, 2012) noted, the speakers are sensitive to the different meaning (especially aspectual meaning) of event structures based on their experience and discourse goals. In order to demonstrate these differences in detail, the two-dimensional geometric analysis of aspectual construals in Croft (2012) is applied. This analysis involves three essential factors: the temporal dimension, along which the event unfolds; the qualitative dimension, which represents the changes over time; and the semantic frame that represents how the verbal semantics is construed. According to Croft (2012: 53), these three factors are combined to describe the lexical aspect. The events unfold over time as a ‘sequence of qualitative states’ and the states ‘characterize the event types’. Therefore, the event meanings of [V *ge* N] and [V *ge* VP] are first analysed in terms of these three factors.

In the previous chapters, the semantic and syntactic properties of [V *ge* N] have been discussed. The nominal elements following *ge* are in the object position and they are all non-referential. N is not understood as an event participant but a property of the event designated by the [VN] structure in contrast with other events. For instance, *fan* ‘meal’ in *chifan* ‘to eat (for the basic physical requirement)’ is non-referential and define the *chi* ‘eating’ activity is restricted to a particular type of eating activity, in contrast with *chi* ‘eating’ in *chi pingguo* ‘eating apples’. Moreover, *chifan* as a verb just takes one argument as the subject and there is no object valency. Therefore, this splittable V-O compound is similar to intransitive verbs typically designating a type of activity, taking only one argument. The argument as indicated in figure 6.2, is the agent in the subject position. *Chi ge fan* ‘have a meal’ is also a one participant event and in the event, the state of the subject is changed. As mentioned in the previous chapters, the data collected and previous research show that the [V *ge* X] construction is often used to designate an event last for short time, which is usually the first event in the sequence of events. In addition, the [V *ge* N] denotes a subjective meaning of trivialness so the event designated by the expression is perceived as bounded and punctual. Croft (2012: 59) also commented that events are perceived punctual because of the ‘interlocutors’ goals in the discourse’. Thus, although *chifan* ‘have a meal’ denotes an atelic and durative activity, *chi ge fan* ‘have a meal’ is punctual and bounded. The semantic detail of *chi ge fan* ‘have a meal’ can be represented in figure 6.4 below.

Figure 6.4 *Chi ge fan* ‘have a meal’



In this figure, the  $x$ -axis ( $t$ ) represents the time dimension and the  $y$ -axis ( $q$ ) is the qualitative dimension. *Chi ge fan* ‘have a meal’ has 5 phases: (1) not eating, (2) the transition from not eating to eating, (3) eating, (4) transition from eating to not eating again and (5) not eating. The first and the fifth phases are represented by the dotted contour, which are presupposed states by the expressions, the pre-event phase (past) and after-event phase (future with reference to the point of speaking). The phases represented by the solid lines are the profiled phases by the meaning of the verbal expression. In other words, the figure 6.4 is the semantic-frame of the aspectual contour of *chi ge fan* ‘have a meal’. The two vertical lines demonstrate the transition phases jumping from one state to the other, i.e. from not eating to eating and from eating to not eating. In other words, these lines demonstrate the qualitative changes. The phase (3) that is represented by a short horizontal solid line indicates the time interval of the event having-a-meal. In accordance with the analysis in previous chapters, events designated by [V *ge* X] construction are perceived as short, bounded and uninterrupted. So the time interval of the event implies the ‘speaker’ conceptualization of ‘real time’ (Croft 2012: 95). In addition, it is reasonable to argue that having-a-meal causes quality change as well, but this increment of quality is not important or profiled by the semantic-frame of *chi ge fan* ‘have a meal’. Instead, the expression instantiating the [V *ge* N] construction profiles a bounded and short event. Therefore, *chi ge fan* ‘have a meal’ is perceived as undirected due to the lack of continuous quality change.

The [V *ge* N] geometric representation in Figure 6.4 is similar to that of cyclic (semelfactive) achievements in Croft (2012: 60 Figure 2.4). The difference is that in the cyclic achievements, the transition phase after the achievements is not profiled. In other words, cyclic

achievements are bounded on the qualitative dimension or *q*-bounded but [V *ge* N] construction denotes events that are bounded mainly on the temporal dimension, or *t*-bounded. The bounded and short event usually occurs in the initial position of a sequence of actions.

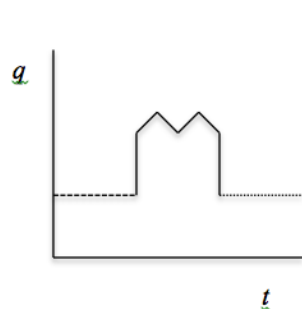
Moreover, cyclic achievements can be iterated but events denoted by [V *ge* N] are normally not. Example (4.4a) ((6.12) below) in Chapter 4 seems to contradict this.

- (6.12) 我 禁不住地 一连 打 了 两  
 wo jinbuzhudi yilian da le liang  
 I cannot.help in.succession hit ASP two  
 个 哈欠。  
 ge haqian.  
 GE yawn.

I couldn't help yawning twice in succession.

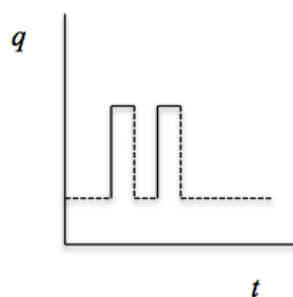
In (6.12), *haqian* 'yawn' construes a cyclic achievement and as discussed in Chapter 4, *da liang ge haqian* 'yawning twice (in succession)' is perceived as a single event bounded by *ge*. Moreover, this type of [V *ge* N] construction tends to take numerals of approximate numbers, such as *ji* 'some' and *san wu* 'three or five (several)'. With the help of the geometric representation, in contrast with the verbal classifier counterpart, this single event interpretation is better illustrated as in Figure 6.5 below.

Figure 6.5 Postverbal *ge* and verbal classifier



(6.5a) *da liang ge haqian*

'yawning twice in succession'



(6.5b) *da liang ci haqian*

'yawning twice'

The zigzags in Figure 6.5 (a) represents the undirected property of the event *da liang ge haqian* 'yawning twice (in succession)'. In addition, the use of zigzags visually demonstrates

that this instance is slightly different from the other instances of [V *ge* N], in which *ge* is not preceded by numerals. The main difference lies in the emphasis on that the bounded event consists of iterated cyclic achievement *dahaqian* ‘yawn’, but the whole *da liang ge haqian* ‘yawning twice (in succession)’ cannot be iterated. On the contrary, Figure 6.5(b) represents an iterated sequence of yawning. According to Croft (2012: 94), Figure 6.5(a) shows that the unprofiled ‘off’ phases between the discrete punctual changes in Figure 6.5(b) are profiled. The choice of different constructions to denote a possible one experience reflects that the speakers are sensitive to the aspectual differences.

The above-mentioned instances of [V *ge* N] all designate one-participant events and there are instances like (6.5), repeated as (6.13) in which the event designated by [V *ge* N] has two participants, i.e. *ta* ‘he’ and *qiche* ‘car’.

- (6.13) 他 给 汽车 加 了 个 油。  
*Ta gei qiche jia le ge you.*  
 He give car add ASP GE petrol.  
 He fuelled the car.

In this fuelling event, the semantic-frame of *jiayou* ‘fuel’ implies two participants, the one who fuels and the one who is fuelled. The substance used to fuel is lexicalized in the splittable compound already so is not profiled. The agent (*ta* ‘he’) initiates the fuelling action and the car is affected by fuelling. Along the *t*-axis, the state of the car is changing for the increasing functionality. So the process of fuelling and the process of being functional by default occur simultaneously. In addition, as mentioned in the previous section, in (6.13), it is odd to say that he fuelled the car but the car was still not functional. In this sense, when the [V *ge* N] construction is used to designate a two-participant event, the resultant state of the affected participant is by default guaranteed. It is similar to the predicate structure involving closed scales analysed in Kennedy and Levin (2008: 159-160). They argued that predicates such as *cool*, *darken* involve closed scales of maximal degree which is construed as the result states. In this sense, [V *ge* N] also implies the maximal degree of a result state and this scale reading is not from the lexical semantics, but the meaning of the construction. Moreover, the [V *ge* N] construction only has one subject valency, so the affected participant can only be realized outside of the construction by the combination with another construction. In many cases, the affected participants are not realized. As in (6.13), *gei qiche* ‘to car’ can be deleted and the propositional meaning is not changed. [V *ge* N] construction of telic and bounded meaning

with the focus on the temporal dimension and the resultant state is implied but not focused. According to Rappaport Hovav and Levin (2002), (6.13) can be construed as containing one sub-event, i.e. the fuelling event, and only one participant is profiled. Hence, [V *ge* N] is used to designate one-participant, undirected, bounded (mainly *t*-bounded) events.

The most obvious difference between [V *ge* N] and [V *ge* VP] semantic-frames is that [V *ge* VP] typically denotes two-participant events. Take (6.9a), repeated as (6.14) as an example.

- (6.14) a. 张三      打      了      他                      个  
*Zhangsan*    *da*      *le*      *ta*                      *ge*  
*Zhangsan*    beat    ASP   him(not.Zhangsan)    GE  
 半死。  
*bansi.*  
 half.dead.

*Zhangsan* beat him (until he was injured) badly

In (6.14), the beating event involves two participants, the ‘beater’ (*Zhangsan*) and ‘beatee’ (*ta* ‘he’). The resultant state of the event is that *ta* ‘he’ is half dead or badly injured. Each participant has their own sub-event: *Zhangsan* beats him and he is half dead. The two sub-events have a causal relation forming a causal chain linking the participants in the event. *Zhangsan* beats him and causes him to be half dead. The change is in a single direction from inception to completion and the resultant state cannot be reversed. The event is therefore incremental and directed. (6.14) can be represented in Figure 6.6.

Figure 6.6 *Zhangsan ba ta da ge bansi.*

*‘Zhangsan beat him till he as badly injured’*

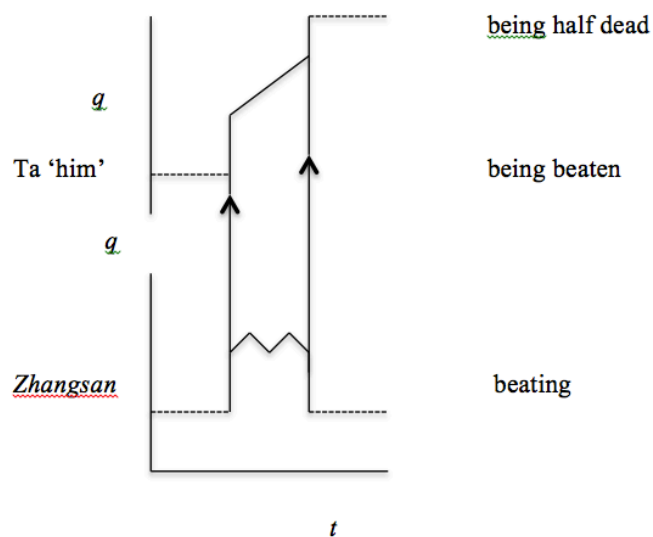


Figure 6.6 represents the two sub-events aligned temporally. There are two participants: *Zhangsan* initiates the beating action and *ta* ‘he’ bears the resultant state. According to Croft (2012: 198), in the causal chain, there is a transmission of force which is indicated by the arrows. The force is initiated by the first member in the causal chain and passed on to each participant until the endpoint. In Croft (2012), the endpoint is an event participant. In order to keep consistency in the thesis, ‘endpoint’ used by Croft is referred to as the ‘endpoint bearer’ and the term ‘endpoint’ denotes the resultant state. In this sense on the causal chain, *Zhangsan* is the first member and initiator, and *ta* ‘he’ is the last one and the endpoint bearer. The force passes from *Zhangsan* to *ta* ‘he’. As indicated in Figure 6.6, in the event, not only the inception and completion phases are profiled, the directed changing phases are also profiled.

The participants in (6.14) are syntactically respectively realized as the subject and the complement of the morpheme BA. To be more specific, the endpoint bearer participant is realized as an oblique object. It is similar to (6.13) in which the affected participant in the event is added by the preposition *gei* ‘to’ in the pre-verbal position, but the affected participants in [V *ge* VP] is profiled in the construction. This is determined by their different semantic-frames. Unlike [V *ge* N] in which the resultant state is implied, [V *ge* VP] overtly



expresses the resultant states by the elements following *ge*. [V *ge* VP] is mainly *q*-bounded, since the resultant states are profiled in its semantic-frame. As the endpoint bearers, the affected participants are therefore profiled. Despite being profiled, the endpoint bearers can be realized in different forms. One is as in (6.14), realized by the morpheme BA, others are as in (6.7a) (6.7b) and (6.8b), repeated as (6.15).

- (6.15) a. 她 要 问 个 水落石出。  
*Ta yao wen ge shuiluoshichu.*  
 She want ask GE water.fall.stone.out.  
 She wants to straighten up the whole matter.
- b. 他 喝 了 个 烂醉。  
*Ta he le ge lanzui.*  
 He drink ASP GE rotten-drunk.  
 He drank to oblivion.
- c. 猪 羊 吃 个 光, 牛  
*zhu yang chi ge guang, niu*  
 pig sheep eat GE clean, cow  
 驴 牵走 了 多 一半。  
*lu qianzou le duo yiban.*  
 donkey pull ASP more half.  
 (They) eat all the pigs and sheep and took away most  
 of (our) cows and donkeys.

These three instances represent three other ways of realizing the endpoint bearers. In (6.15a), there is no overt realization of the other participant, but the referent of the participant can be recovered in the context. Using the term mentioned in Fillmore and Kay (1993), this absent participant is interpreted as Definite Null Instantiation (DNI). According to Croft (2012: 333), this kind of absent participant has ‘definite reference to a highly accessible referent in the discourse context’. In (6.15a), the sub-events are: she asks and the matter is straightened up. It seems there is no coherent causal chain. She asks someone about the matter and therefore the matter is straightened up. One participant in the asking event is missing. In (6.15a), however, the patient role in the asking event is not profiled and hence it is not realized. The referent of this missing participant is indefinite so is Indefinite Null Instantiation (INI) in contrast with DNI. It can be anyone who may know about the matter but the thing the initiator wants to straighten up is definite in the context. So in this case, *ta* ‘she’ is the initiator in the causal

chain, the indefinite null realized participant is the antecedent oblique object which is antecedent to the object in the chain and the definite null realized participant is the endpoint bearer. Despite the endpoint bearer not being instantiated, the referent is still available to the readers and does not affect the construal of the event.

In (6.15b), there is also only one participant in the drinking event designated by the expression, but there are still two sub-events: he drinks and he is drunk. There is also one absent participant in the causal chain, which is the thing being consumed, like alcohol. This missing participant in the event is incorporated with the verb *he* ‘drink’ so it does not need to be realized. There is only one participant which is both the initiator and endpoint bearer. Unlike the one-participant event denoted by instances of [V *ge* N], (6.15b) instantiating [V *ge* VP] designates an event that is directed and non-reversible.

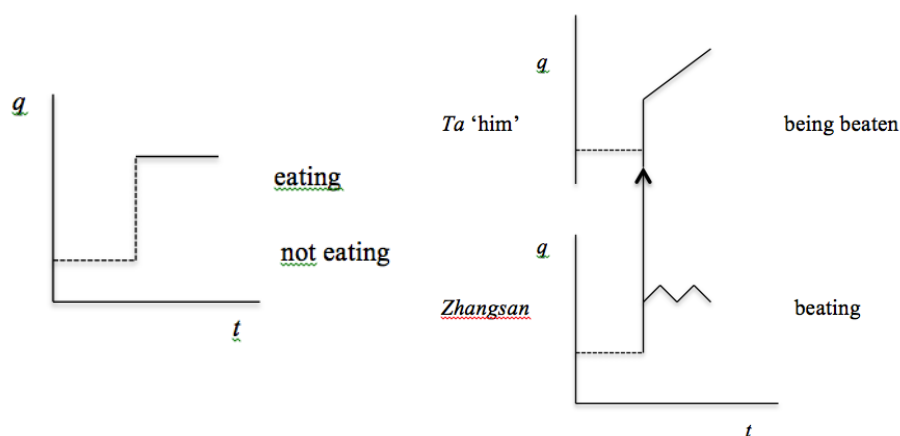
As to (6.15c), there is also only one overtly realized participant, a collection of livestock. The causal chain in the event is someone (eats), livestock (consumed). (6.15c) is different from (6.15b) because the subject position is the endpoint bearer but the initiator is not realized. It is an ergative event because the transitive object (P argument) is in the subject position (S) of the corresponding intransitive sentence. According to Croft (2001, 2015), the speakers can group the transitive objects and intransitive subjects together in the conceptual space based on their experience. So it is not a difficult task for the speakers to construe the intransitive subject in (6.15c) as the endpoint bearer. In addition, Croft (2012) also argued that participant control also influences the event (like (6.15c)) construals. That is to say, if the participant has more control in the event, it is more subject-like or A (i.e. transitive subject) - like. In (6.15c), the verb *chi* ‘eat’ is relatively controlled according to the ranking in Croft (2012:258). So the intransitive subject is construed somehow as an initiator as well. Of course, it does not semantically initiate the event, but it enables the real initiator, which is indefinite, to remain unprofiled.

Despite different participant realization in the events designated by instances of [V *ge* VP], they can all be represented as in Figure 6.6 in terms of event construals. All these events are directed and causal and the endpoint bearer participants are profiled. In contrast, [V *ge* N] profiles events that are undirected and the endpoint bearers are not profiled. There are still some similarities between these two micro-constructions. In addition to the common bounded reading, they can both designate causal events. Croft noted that one-participant events like

yawn can be construed as internal causal events: some internal cause in the body initiates the yawning action. Similarly, *chi ge fan* ‘have a meal’ and *jia ge you* ‘fuel’ can also be interpreted as the initiator causes him/herself to perform the action. The difference is that the force is transmitted within one participant in [V *ge* N] while the force is passed on to another participant in [V *ge* VP]. Although the single sub-event in [V *ge* N] does not directly cause another sub-event, as mentioned above, it is often used in a series of actions as the first event. In this sense, it does not directly cause another event, but it has temporal relation with other events. Moreover, [V *ge* VP] is bounded by the maximal degree that the endpoint bearer can reach caused by the initiator; [V *ge* N] also involves a degree scale implying the maximal degree as the resultant state.

Bearing all these differences and similarities of [V *ge* N] and [V *ge* VP] in mind, the function of *ge* can be identified. In order to better illustrate its function, the atelic counterparts of [V *ge* N] and [V *ge* VP] are demonstrated in the geometric representation as well, in Figure 6.7.

Figure 6.7 [VN] and [V *de* X]



(6.7a) *Chifan* ‘have meals’

(6.7b) *Zhangsan ba ta da de bansi*  
‘Zhangsan beat him badly.’

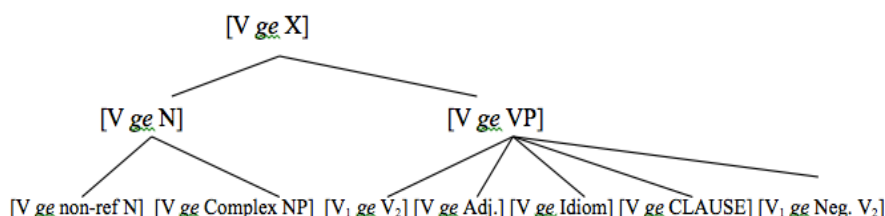
It is clear that in Figure 6.7, [VN] construction is unbounded on both sides and [V *de* VP] construction is unbounded on the right end. In Figure 6.7 (a), as [VN] designates an unbounded activity, like *chifan* ‘eat’, it profiles the state of the activity and the initial change is not profiled. In Figure 6.7(b), the VP following *de* does not guarantee the end of the action, so the state of the participant represented above is hypothetically constantly changing in

tandem with the action performed by the initiator. So *ge* in [V *ge* N] profiles the initial change and the endpoint of the event and in [V *ge* VP], it profiles the endpoint.

Furthermore, the two subschemas of the [V *ge* X] construction also have various micro-constructions respectively. [V *ge* N] includes [V *ge* Complex NP] and [V *ge* non-ref N] in which the non-ref N represents the collocational object of the preceding V in an idiomatic VP. [V *ge* VP] includes [V<sub>1</sub> *ge* V<sub>2</sub>], [V *ge* Adj.], [V *ge* Idiom<sup>15</sup>], [V *ge* CLAUSE], and [V<sub>1</sub> *ge* Neg. V<sub>2</sub>].

The relation between these schemas can be demonstrated in the Figure 6.8 below.

Figure 6.8 Hierarchical levels of [V *ge* X]



In this figure, all types of [V *ge* X] pattern discussed in Chapter 4 are represented in a hierarchical system of different levels of abstraction. [V *ge* N] generalizes over [V *ge* non-ref N] and [V *ge* Complex NP] and therefore [V *ge* non-ref N] and [V *ge* Complex NP] are sanctioned by [V *ge* N]. It is the same with [V *ge* VP] and its sub-constructions. [V *ge* VP] is a generalization of its sub-constructions and at the same time [V *ge* VP] also sanctions them. [V *ge* X] at the top is the most schematic and generalized from all the micro-constructions and sub-constructions. In this hierarchy, sub-constructions have all the semantic and syntactic properties of the more schematic construction but also have additional properties of their own. In form, lower level constructions are more specific and concrete than their super construction. In meaning, lower schemas have additional semantic or pragmatic meanings. For example, [V<sub>1</sub> *ge* V<sub>2</sub>], compared with [V *ge* VP], designates a more specific type of telic event in which the endpoint is the occurrence of an action designated by V<sub>2</sub>. [V *ge* CLAUSE] indicates the event's endpoint is marked by the occurrence of another event denoted by the following clause. [V<sub>1</sub> *ge* Neg. V<sub>2</sub>] implies a continuing resultant state designated by V<sub>2</sub>. [V *ge*

<sup>15</sup> For the sake of convenience, in [V *ge* Idiom], Idiom covers Chinese –four-character-idioms and other form idioms.

Adj.] and [V *ge* Idiom] involve the endpoints coded with an end- of – scale meaning. As to the other branch, compared with [V *ge* N], [V *ge* Complex NP] and [V *ge* non-ref N] designate more specific event of telic and bounded aspect. In addition, despite the meaning differences, these sub-constructions are also related to the super- schemas by polysemy links.

Furthermore, all the sub-constructions of the same level of abstraction listed at the bottom of Figure 6.5 represent various types of [V *ge* X], all these types differ in compositionality and analyzability. A typical classifier in Chinese appears between a numeral and a noun; in a post-verbal position, if the numeral is *yī* ‘one’, the numeral can be omitted. Thus, in form, [V *ge* N] is the best fit to this rule compared with other sub-constructions. In other words, [V *ge* N] is more analyzable than the other sub-constructions and as demonstrated in section one, since [V *ge* N] is relatively more analyzable, it can be extended by adding modifications before N. micro-constructions of [V *ge* VP] are less analyzable since *ge* is followed by non-nominal constituents. As analyzed above, [V *ge* N]’s telic and bounded event reading is provided mainly by the construction since it does not have an overt endpoint. So compared with [V *ge* VP], which has an endpoint denoted by VP following *ge*, [V *ge* N] is low in compositionality. Sub-constructions of [V *ge* VP] do not have the same level compositionality, as [V<sub>1</sub> *ge* Neg V<sub>2</sub>] designates a continuous resultant state of a realis event. The telic and bounded meaning of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is less compositional than other subschemas.

Differences in properties among sub-constructions suggest these sub-constructions at the same level of abstraction are not structured in the same way, either syntactically or semantically. It is not clear if all sub-constructions of [V *ge* VP] are equally compositional/non-compositional or if all types [V *ge* N] are sanctioned by their super-construction in the same way. In the next section, the analysis on the development of post-verbal *ge* from a historical construction grammar perspective tries to answer these questions by investigating how [V *ge* X] came into existence.

## 6.4 Constructional Change and Constructionalization of [V *ge* X]

Chapter 5 has described the collocational change of *ge* in detail from the 3<sup>rd</sup> Century BC to 17<sup>th</sup> Century AD. It has demonstrated that *ge* and its collocation has gone through a series of

complex changes. This section will draw a picture of the constructionalization process of [V *ge* X] based on the description in Chapter 5.

### 6.4.1 *Ge* in the Chinese Classifier Construction

As introduced in Chapter 5, *ge* in the 3<sup>rd</sup> Century BC was used as one of the proto-classifiers (PCL), which are different from the classifiers used nowadays in terms of their main function. The main function of PCLs is quantification while contemporary classifiers are for categorization. Furthermore, PCLs and classifiers are different in morphosyntax. PCLs are typically used with numerals following the nouns they quantify while classifiers appear between the numeral and the noun. Thus, according to the definition of construction, PCLs and classifiers form different constructions and they can be represented briefly below, respectively.

PCL Construction: [[Numeral PCL]<sub>form</sub> ↔ [Quantification, Anaphora]<sub>meaning</sub>]

Classifier Construction:

[[Numeral CL Noun]<sub>form</sub> ↔ [Quantification, Categorization]<sub>meaning</sub>]

As analyzed in Chapter 5, PCLs do not have the specifying function for the nouns proceeding but are more like anaphora referring to the entities denoted by the preceding nouns with additional quantification meaning. On the other hand, in the classifier construction, the numeral and classifier together function as a specifier of the following noun with quantification and categorizing function. Despite the different constructional structure and meaning, PCLs and classifiers share a common semantic property, individualization. In the PCL construction, PCLs individualize entities against the whole group or mass in order to be quantified by numerals. Similarly, in the classifier construction, a nominal concept denoted by the noun needs to be individualized and categorized by classifiers and then quantified by numerals. Thus, individualization is a default property of both PCLs and classifiers. *Ge* as one of the PCLs had an essential function which was to individualize entities/parts and making a contrast against a group/ whole. Since *ge* is a word created to denote singular and individual meaning as analyzed by Wang (1994), PCL construction with *ge* is found mainly collocated with nouns denoting objects and food which do not have a specific size such as meat and animal skin.

From the 2<sup>nd</sup> Century AD, *ge* in the PCL construction starts to collocate with nouns of time, such as *yue* ‘month’ and the whole construction appears before nouns. However, it does not mean that the PCL construction has transformed into classifier construction, since the meaning of the construction does not change. As in (5.6b), repeated here as (6.16).

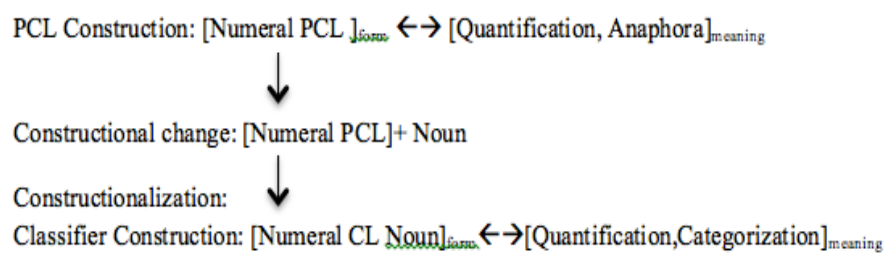
- (6.16) 夏        及        秋        冬        三        个        月  
          *xia*        *ji*        *qiu*        *dong*        *san*        *ge*        *yue*  
          summer    and    autumn    winter    three    GE    month  
          防        此        为        忌。  
          *fang*        *ci*        *wei*        *ji*.  
          avoid        this    as        bad.

To avoid this in summer, autumn and winter three seasons.

The PCL construction precedes the noun *yue* ‘month’, but this PCL + Noun combination is an anaphora of the seasons (summer, autumn and winter) listed before. Thus, although there is a word order change, the construction meaning stays the same (i.e. anaphora, quantification). According to Traugott and Trousdale (2013), there is no form<sub>new</sub> –meaning<sub>new</sub> pair, so this is considered as a constructional change. This constructional change indicates that the PCL construction with *ge* starts to collocate with nouns of abstract concept which it did not co-occur with before. Although, based on the data from CCL corpus, in this time period, the PCL construction with *ge* only co-occurs with *yue* ‘month’, it suggests this particular sub-construction starts its host-class expansion.

In the 6<sup>th</sup> Century, the PCL construction tends to locate before nouns. The routinized word order indicates a change of information structure and PCL construction cannot be anaphora of its following nouns. Furthermore, PCLs in this construction show a clear preference to collocating with nouns denoting entities based on their categories. Thus, the anaphoric meaning of PCL construction has lost and a new categorization meaning component is installed. Due to the increasing repetition of Num+PCL+ Noun, this combination forms a new chunk and a form<sub>new</sub> –meaning<sub>new</sub> pair emerges. The classifier construction of quantification and categorization meaning is formed. Constructionalization of classifier construction can be illustrated as follows.

Figure 6.9 Constructionalization of classifier construction



*Ge* as one of the earliest fillers in PCL construction becomes a high frequent classifier in the classifier construction. In late 6<sup>th</sup> Century and early 7<sup>th</sup> Century, classifier construction with *ge* co-occurs with nouns which have their specialized classifiers. Furthermore, [Num *ge* Noun] construction is able to host nouns of abstract concepts, including utterance, opinions in addition to time. This rapid expansion of host-class only occurs to classifier construction with *ge* but not with other classifiers.

#### 6.4.2 Emergence of [V *ge* VP] with Subjective Meaning

In the 8<sup>th</sup> Century, a significant change occurs to the classifier construction with *ge*, namely ‘*yi* omission’. In the post-verbal position, when the numeral is *yi* ‘one’, the numeral can be omitted. Thus, instances of the [*ge* Noun] schema in post-verbal position are easily found in the literature of that time period. Despite the omission of the numeral, [*ge* Noun] is still able to denote quantification, because *ge* is encoded with singular number meaning. The singular meaning of *ge* may have been derived from two sources. One is the origin of *ge* itself, as introduced in Chapter 5, which is first created to individuate a unit with respect to the whole. The other possible source is by the influence from its routine context. Since *ge* as a classifier is more frequently used with numeral *yi* ‘one’ than with other numerals according to the corpus data, it is possible that repetitive use of ‘*yi ge*’ forms a chunk with a singular meaning. When the numeral *yi* ‘one’ is omitted, the bare form *ge* in the construction still has the singular meaning. From another perspective, due to the influencing of the collocation, the numeral *yi* ‘one’ becomes optional without changing the meaning of the expression in the beginning use of [*ge* Noun] in the post-verbal position. However, without overt expression of numerals, the quantification meaning of [*ge* Noun] becomes secondary. With the increased



use of the [*ge* Noun] schema, the quantification function that emphasizes a specific number of the entity denoted by this schema has been lost. At the same time, without the restriction of quantification (only discrete entities can be quantified), the meaning of the classifier construction with *ge* becomes more general and can host nouns that do not typically exist in discrete form. As analyzed in Chapter 5, since the omission of the presence of a numeral before *ge*, [*ge* Noun] in post-verbal position starts undergoing a series of semantic changes. The changes to [*ge* Noun] occur with the particular condition that is the schema is in the post-verbal position. So the preceding verb interacts with the change as well. As Himmelmann (2004) mentioned, the syntagmatic context in which the change occurs cannot be ignored. Thus, the analysis focuses on transitive verb construction whose object position is filled by an NP in the form of [*ge* Noun]. The form of the construction can be represented simply as [V [*ge* Noun]] in order to illustrate the syntactic relation between the verb and [*ge* Noun]. It is a type of transitive construction in which object NP is specified by classifier *ge*. In this particular micro-construction of transitive verb construction, [*ge* Noun] represents a type of classifier construction.

The collocation range of *ge* in the [*ge* Noun] schema in this particular position grows wider and wider. Since the omission of the numeral, *ge* is frequently found to collocate with nouns of abstract concept, such as messages, meals and jokes. These nouns denote abstract entities but their referents can still be perceived as discrete. At the same time, due to the omission of numeral before *ge*, it is found to collocate with nouns which have their specialized classifiers. Unlike the similar host-class expansion in the 7<sup>th</sup> century when *ge* in the classifier construction is preceded by a numeral, this time the object NP with *ge* denotes a slightly different meaning from the NP with its specialized classifiers. Compare the following pair. (5.7a) repeated as (6.17a), is an instance from the 7<sup>th</sup> Century and (5.11d) repeated as (6.17b) is an instance from the 8<sup>th</sup> Century. They all involve *ge* in post-verbal position followed by nouns which have specialized classifiers.

- (6.17) a. ...即                变为    三    个    白鹤。  
               ...*ji*                *bianwei* *san*    *ge*    *baihe*.  
               ...immediately change three GE<sub>cl</sub> crane.  
               (they) immediately transform into three cranes.

- b. 着 个 绯衫 倚势 行。  
*zhou ge feishan yishi xing*  
 wear GE<sub>cl</sub> red.coat along.road walk.

(someone) walks along the road wearing a red coat.

In (6.17a), *ge* is preceded by a numeral *san* ‘three’ and followed by a noun *baihe* ‘crane’ which has its specialized classifier *zhi*. Similarly, in (6.17b), *ge* is followed by a noun *shan* ‘coat’ whose specialized classifier is *ling* but there is no numeral before *ge*. The difference between these two instances lies in the referential reading of the noun following *ge*. In (6.17a), *baihe* ‘crane’ following *ge* is referential and profiled or foregrounded while *shan* ‘coat’ in (6.17b) is non-referential and backgrounded. Thus, *ge* without a numeral can collocate with nouns of non-referential reading. As mentioned in Chapter 5, *ge* in [V [*ge* Noun]] starts the semantic bleaching. Accompanying the loss of semantic properties, the host-class of [*ge* Noun] continues expanding. So far, the micro-construction [V [*ge* Noun]] is able to host wide range of nouns, including nouns of concrete objects, such as food, people, animals, plants, clothes, etc., nouns of abstract concepts, such as utterances, messages, opinions, etc., and nouns of non-referential readings as in (6.17b). The expansion of host-class suggests the productivity of [V [*ge* Noun]] is increasing and it is able to sanction more instances, existing and new.

In late 9<sup>th</sup> Century, [V [*ge* Noun]] is found to sanction more types of constructs, as exemplified in (5.12) and (5.13), repeated as (6.18a) and (6.18b).

- (6.18) a. 且 说 个 超 佛 越  
*qie shuo ge chao fo yue*  
 now say GE<sub>cl</sub> surpass Buddha surpass  
 祖 的 道理。  
*zu de daoli*  
 ancestor DE argument  
 ...can (you) tell an argument which can surpass the  
 ones from the Buddha.

b.	...尽	学	个	驰求走作。
	...jin	xue	ge	chiquizouzuo
	...all	learn	GE	run.after

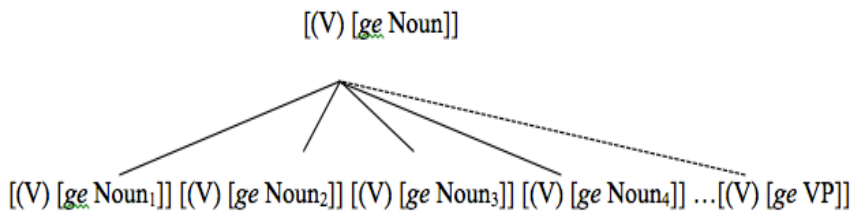
You only know to go to different places to learn the knowledge (about Buddhist)

(6.18a) is an instance in which *ge* is followed by a complex NP and in (6.18b) *ge* is followed by a nominalized VP. (6.18b) is not classified as an early instance of the [V *ge* X] construction with telic aspectual meaning because they do not have the same semantic property. In the [V *ge* VP] micro-construction with telic aspectual meaning, the VP following *ge* indicates the endpoint of the event but in (6.18b), the VP following *ge* does not have this function. In other words, although these two patterns share similar surface structure, they do not have the same meaning and they are not instances of the same construction. In (6.18b), the phrase following *ge* introduces the specific content of learning but the meaning of the de-verbal NP is not as referential as the NP in (6.18a). That is to say, (6.18b) is still a construct of [V [*ge* Noun]] but the relation between *ge* and its following element is changing. In addition, the structure instantiated in (6.18b) is encoded with a new meaning. The structure of (6.18b) expressed the speaker's subjective attitude towards the event. Traugott (1989) considered this type of meaning change, subjectification, as a special type of semantic change 'based in the speaker's subjective belief state/attitude toward the proposition' (Traugott 1989: 35). So this instance is regarded as the initial instance of [V<sub>say/think</sub> *ge* X] with subjective meaning. As indicated by the later on data, the elements following *ge* are not restricted to nominal and clauses are admitted.

Therefore, this semantic change is also a result of semantic generalization. Due to a continuous host-class expansion, [*ge* Noun] in post-verbal position has been through several sequences of semantic bleaching. And semantic bleaching leads to loss of constraints to the Noun slot. Therefore, nominalized VP as in (6.18b) enters the schema and causes the emergence of a new meaning. In addition, the host-class expansion of [*ge* Noun] suggests the increase of productivity. But as shown in Figure 6.7, as more types of instances enter the construction, and Chinese lexical items have the hidden complexity (Bisang 2009), there may be a point when a new type cannot be completely sanctioned by the existing construction. As Bisang (2010) discussed, the function of a Chinese lexical item needs to be clarified by the slot it appears in in a specific construction. So as analysed in section 6.3, one surface structure

in Chinese can have different functions in different constructions. The word 死 *si* alone can be a verb with the meaning of ‘die’, and be an adjective ‘dead’. In (6.19), it functions as a noun denoting a state of being dead. The nominal function is clarified by the classifier construction with *yige*. So 死 *si* with these three functions of three grammatical categories forms an intersective gradience according to Bisang (2010) by citing Aarts (2004, 2007). In (6.19), the nominal interpretation of *si* ‘die’ is because of the constraints on the slot following classifiers in the classifier construction. The classifier construction is still able to sanction (6.19). But the instance in (6.18b), cannot be sanctioned by the classifier construction completely, as indicated by dashed lines in figure 6.10. Then, speakers potentially start to give a new analysis string.

Figure 6.10 Host-class expansion of [*ge Noun*] in post-verbal position

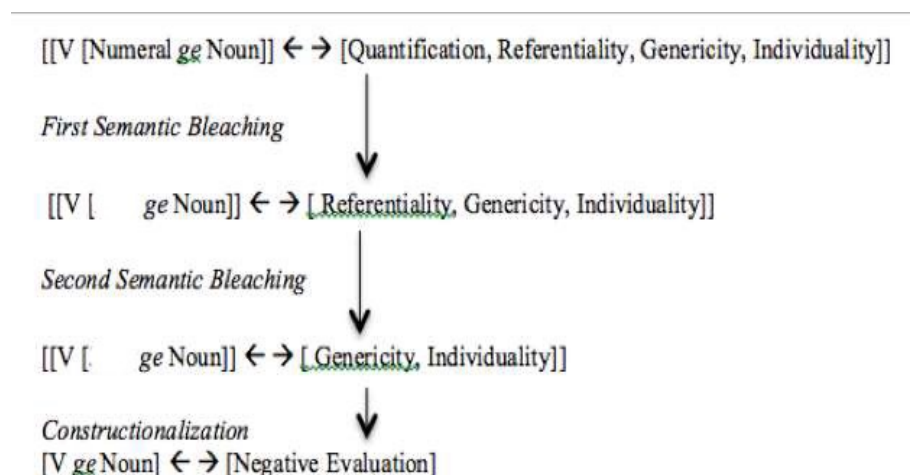


- (6.19) 终            须            一            个            死  
           *zhong*        *xu*            *yi*            *ge*            *si*.  
           finally        need          one          GE<sub>cl</sub>        die.  
           (Everyone) will finally die. (Everyone will end up with the  
           state of being dead. )

The diagram above illustrates the host-class expansion process of [*ge Noun*] in post-verbal position. During the expansion process, [*ge Noun*] sanctions more types of sub-schemas which involve various types of nouns (marked as Noun<sub>1</sub>, Noun<sub>2</sub>, Noun<sub>3</sub> ...). As the range expands, the semantic properties of [*ge Noun*] keep changing i.e. generalizing as well and the super-schema has fewer restrictions on its sub-schemas. This provides the condition for the appearance of [*ge VP*]. But the appearance of [*ge VP*] also delimits the further expansion of the super-schema and marks the emergence of a new construction.

As to the new construction [V *ge* VP] of subjective meaning, it represents a form<sub>new</sub> – function<sub>new</sub> pair and this constructionalization is led by series steps of constructional changes, mainly semantic changes as illustrated below.

*Figure 6.11 constructional changes of post-verbal ge leading to the emergence of a new construction*



The vertical arrow indicates temporal sequence and Figure 6.11 shows the constructionalization of [V *ge* VP] of subjective meaning. One thing needs to be clarified that the omission of the numeral occurs in the first bleaching is not considered as a form changing because it does not affect the syntactic dependency between *ge* and its collocations. However, in the last step, when the post-verbal bare *ge* has been through a continuous process of semantic bleaching, the classifier features of *ge* lose completely. In other words, *ge* is not associate with the following elements anymore. Due to the omission of numeral *yi* ‘one’, *ge* inherits not only the singular meaning of *yi* ‘one’ and but also a meaning of minimal unit. While the semantic property of [*ge* Noun] is changing, there is also a pragmatic expansion. The minimal unit reading of *ge* implies negative evaluation towards the proposition (from the implication ‘too small’) in [V *ge* VP] of subjective meaning.

The new construction [V *ge* VP] of subjective meaning does not replace the existing [V [*ge* Noun]] construction. Instead, they continue developing separately. The next section 6.4.3 discuss the following development of the two constructions.

## 6.4.3 Post-constructionalization Changes

### 6.4.3.1 [V *ge* VP] with Subjective Meaning

Since the 10<sup>th</sup> Century, there is an increasing number of instances of [V *ge* VP] with subjective meaning found in the literature. Based on the corpus data listed in Chapter 5, the preceding verbs are restricted to verbs of communication and verbs of mental activity while the host-class of VP slot following *ge* is expanding to include various types. In the 10<sup>th</sup> Century, *ge* in this construction is followed by clause of reported speech of others as in (5.21), here repeated as (6.20).

- (6.20) (妙女) 忽 言 个 要 暂  
(*miaonü*) *hu* *yan* *ge* *yao* *zan*  
(Miaonü) suddenly say GE will temporarily  
去, 请 婢凤楼 代 绣。  
*qu*, *qing* *bifenglou* *dai* *xiu*.  
leave, ask Bifenglou replace stitch.  
(Miaonü) suddenly said she would be away for a while and  
she asked Bifenglou to replace her.

Since the verbs used in this construction are mainly verbs of communication and verbs of mental activity, in order to distinguish it from [V *ge* X] of telic aspectual meaning, this construction is represented as [V<sub>say/think</sub> *ge* X] of subjective meaning. In this construction form, VP is replaced by X because of an increase of schematicity of the construction. Since the construction's host-class expands, in the 12<sup>th</sup> Century, there are more types of [V *ge* VP] of subjective meaning, such as [V<sub>say/think</sub> *ge* direct quotation], [V<sub>say/think</sub> *ge* NP], [V<sub>say/think</sub> *ge* Clause] and [V<sub>say/think</sub> *ge* Complex VP]. X following *ge* indicates the content of saying or thinking and the construction implies the speaker's negative attitude towards the content said or thought denoted by X.

In addition, X in [V<sub>say/think</sub> *ge* X] can be a pair of verbs or predicate adjectives of opposite concepts, such as (5.24), here repeated as (6.21).

- (6.21) a. 只 争 个 知 与 不知。  
*Zhi* *zheng* *ge* *zhi* *yu* *buzhi*  
Only argue GE know and not.know.  
...only try to distinguish knowing and not knowing.

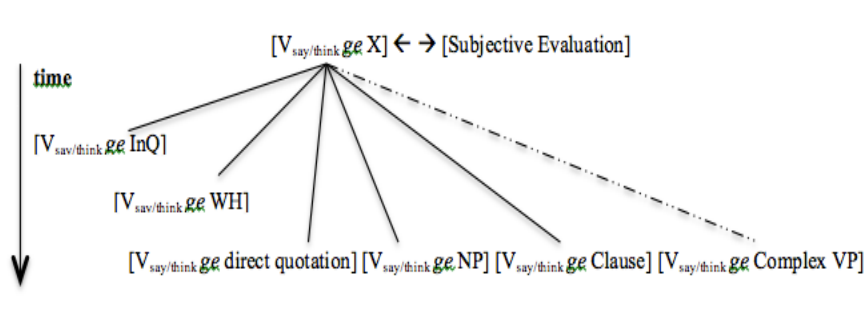
- b. 凡事            只    去    看    个    是非  
*fanshi*        *zhi*    *qu*    *kan*    *ge*    *shifei*  
 everything    only    go    see    GE    yes.no.

If everything is only distinguished by right or wrong...

This type of  $[V_{\text{say/think}} \text{ ge } X]$ , noted as  $[V_{\text{say/think}} \text{ ge } \text{Complex VP}]$ , has ambiguous semantic meaning. One is the same as the other types in that  $X$  is the content of saying or thinking. The other one is  $X$  denotes the possible result of the action designated by the preceding verb. In addition, the verbs in this type are different as well. They belong to the set of verbs of communication and mental activity, but they are also verbs of achievement. Therefore, this type of  $[V_{\text{say/think}} \text{ ge } X]$  is coded with a possible resultative interpretation in addition to its subjective meaning.

The post-constructionalization development of  $[V_{\text{say/think}} \text{ ge } X]$  can be illustrated in Figure 6.12 below.

Figure 6.12 Post Cxn CCs of  $[V_{\text{say/think}} \text{ ge } X]$



The vertical arrow in the above diagram indicates the sequence in which different variants of the  $[V_{\text{say/think}} \text{ ge } X]$  construction appear chronologically. The marginal  $[V_{\text{say/think}} \text{ ge } \text{Complex VP}]$  is linked with the construction by a dashed line because it has additional meaning that the other types do not have and the dashed line suggests it is partially sanctioned by the construction.

#### 6.4.3.2 Further Development of $[V [\text{ge } \text{NP}]]$

Since the 11<sup>th</sup> century, after several steps of semantic bleaching, *ge* as a classifier in the post-verbal position does not necessarily collocate with referential NPs that denote existing entities. And when *ge* collocates with non-referential NPs, the preceding verbs tend to be verbs of changing of states as in (5.20a) repeated as (6.22).

- (6.22) 只 成 得 个 野狐精 业。  
*zhi cheng de ge yehujing ye.*  
 just accomplish ASP GE amateur karma.

Just accomplished a karma as an amateur.

Therefore, these instances can be generalized as [V<sub>change-of-state</sub> [*ge* NP<sub>non-ref</sub>]] implying heterogeneous activity.

In the 12<sup>th</sup> century, *ge* in post-verbal position collocates with nouns of abstract concepts such as respect, conscience. Furthermore, the numeral *yi* ‘one’ is found presenting in some instances of this type. When the numeral *yi* ‘one’ is overtly expressed, the preceding verbs are typically copula *shi* ‘be’ and the existential verb *you* ‘there be’. Since the NPs following *ge* are non-referential, they cannot be quantified by numeral *yi* ‘one’. As argued in Chapter 5, numeral *yi* ‘one’ in these instances is considered as a misuse which is the product of overgeneralization, and this indicates that speakers in the 12<sup>th</sup> century tried to apply standard classifier rules to the semantic bleached *ge* in post-verbal position. And the overgeneralization suggests that in this time period, the first semantic bleaching of post-verbal *ge* was newly completed and language users have not clearly delineated the difference between the newly developed *ge* and typical classifier *ge*.

Moreover, after the semantic bleaching of *ge*, in order to align the individualizing function of *ge* and non-referential reading of NPs following it, *ge* as a classifier together with its collocations, i.e. preceding verb and following NP, undergo a syntagmatic expansion. NPs following *ge* are not semantically non-referential but pragmatically non-referential. That means non-referential NPs following *ge* are thematically important although they have non-referential reading *ge*. This forms a mismatch of form and meaning, in which a referential constraint form denotes a non-referential meaning. This mismatch is not stable and motivates further changes.

In addition, the increasing use of [V [*ge* WH]] type marks the entrenchment of the second semantic bleaching of *ge* as argued in Chapter 5. This type of [V [*ge* WH]] is different from [V<sub>say</sub> *ge* WH] because the former does not imply a negative evaluation and *ge* in the former is



grouped with its following WH-words constituting an object of the preceding verb as in (5.23a), repeated as (6.23).

- (6.23) 如      『求生      以      害      仁』,      须  
*ru*      ‘*qiusheng*      *yi*      *hai*      *ren*’,      *xu*  
 like      ‘survive      for      damage      benevolence’,      must  
 理会      得      害      个      甚么。  
*lihui*      *de*      *hai*      *ge*      *shenme*.  
 care      ASP      damage      GE      what.

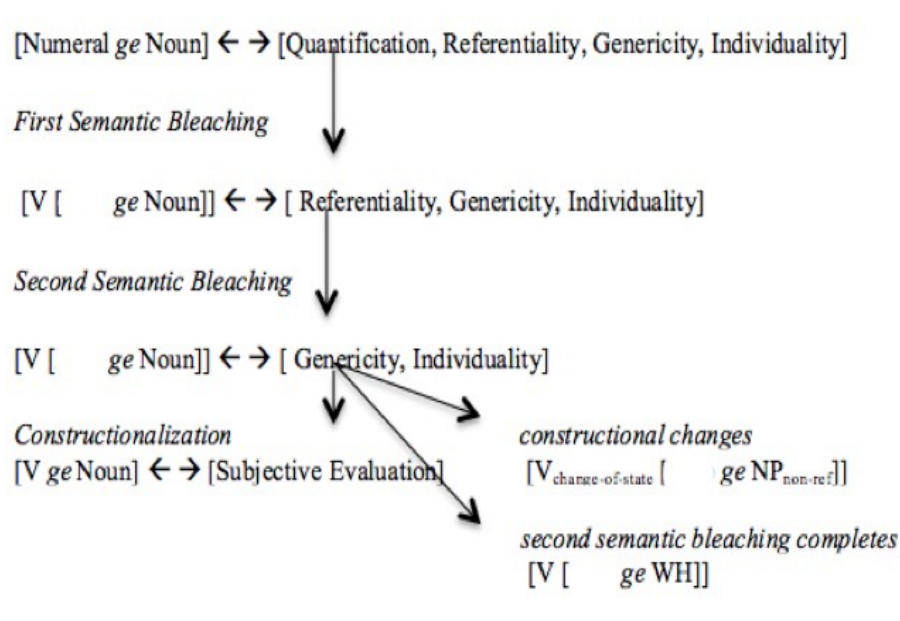
As to the quotation ‘to damage benevolence in order to survive’, one must understand what is damaged.

In this instance, *shenme* ‘what’ is affected by the damage although it is not specified in terms of what kind of object it is. In addition, (6.23) is not a rhetorical question and it does not imply any negative attitude towards the event involved.

To sum up, from 12<sup>th</sup> to 13<sup>th</sup> century, post-verbal *ge* as a classifier has been through several steps of semantic changes and these changes are gradually entrenched among language users. But since there is no form changing, these changes are considered as constructional changes, but not constructionalization.

So far, the changes of [V [*ge* NP]] can be listed in the diagram below.

Figure 6. 13 Constructional changes and constructionalization of [V ge X] of subjective meaning



After this series of changes, in the late 13<sup>th</sup> century, the [V ge X] construction with telic and bounded meaning finally formed. In the next section, the constructionalization of [V ge X] of telic and bounded meaning will be introduced.

#### 6.4.4 Constructionalization of [V ge X] of Telic and Bounded Meaning

In Chapter 5, the emergence of [V ge X] pattern with telic and bounded aspectual meaning has been described. It is striking to find that all the micro-constructions of [V ge X] are formed at almost the same time. Based on the analysis in 6.4.3 above, it is highly possible that the micro-constructions of [V ge X] are formed along separate paths.

In the late 13<sup>th</sup> century, [V ge N] pattern gains the telic and bounded aspectual property and it shows high type frequency. The NP in this pattern is non-referential and has a collocational relationship with the preceding verb. These non-referential NPs following *ge* have low thematic importance and therefore they do not need *ge* as a classifier to individualize the concept into discrete entities. As mentioned above, the form and meaning mismatch is unstable and motivates neo-analysis. Since *ge* as a classifier no longer imposes referentiality

constraints on its following NP, its individualizing function cannot be applied to the NP as well. However, an individualizing function is the basic semantic property of *ge* and cannot be bleached out. So the function is applied to other scopes. According to Langacker (1991, 2013), nouns exist in spatial scope and count/mass nouns can be distinguished on conceptual grounds. Count nouns are construed as profiling things that are ‘bounded within the immediate scope in the domain of instantiation’ and the profiles of the mass nouns are construed as not bounded (Langacker 2013: 132). The ‘immediate scope’ can be understood as ‘the general locus of attention’ and the ‘domain of instantiation’ refers to instances of a type of thing named by a noun. Based on Langacker’s arguments, the main difference between count and mass nouns is about the boundary of a thing they profile within the immediate scope. As introduced in Chapter one, Chinese nouns are all mass nouns and denote types of things. That indicates that all Chinese nouns are naturally construed as naming unbounded types. So classifiers are required to create the boundary of an entity profiled by a noun within the immediate scope. *Ge* as a classifier individualizes bounded entities in the spatial scope from the mass nominal concept denoted by an NP. Similarly, Langacker (2013) compared verbs and nouns; he believed that the count/mass distinction between nouns can be analogous to the perfective/ imperfective distinctions between verbs. In his analogy, perfective verbs can be construed, like count nouns, as bounded within the immediate scope in the temporal scope. The analogy shed lights on the interpretation of *ge* in the [V *ge* N] construction. *Ge* can be considered as functioning as an individualizer in the temporal scope. In other words, by analogization, *ge* in [V *ge* NP] individualizes a bounded event against the unbounded activity. This means *ge*’s individualizing function is shifted from the spatial scope, i.e. as a classifier to individualize entities, to the temporal scope, i.e. to individualize events in [V *ge* N]. As a result, *ge* is not functioning over its following NP; in [V *ge* N] *ge* is functioning over the whole construction which designates the action. Then, unlike in instances from the 12<sup>th</sup> century and the early 13<sup>th</sup> century, *ge* is not associated with its following NP, neo-analysis is required. *Ge* does not form a dependency relationship with the following noun but functions as an independent operator to mark the telic and bounded reading of the [V *ge* N] construction. By now, a form<sub>new</sub>-meaning<sub>new</sub> pair is formed, and [V *ge* N] with telic and bounded meaning is constructionalized.

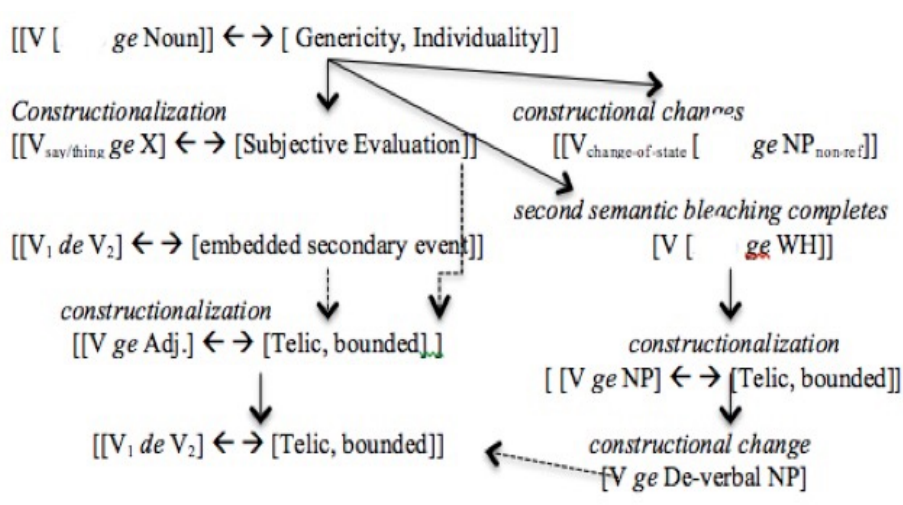
The constructionalization of [V *ge* N] is not abrupt but emerges from a set of previous changes. First of all, the omission of numeral *yi* ‘one’ before *ge* provided a condition for the

semantic bleaching of *ge*. Second, a sequence of semantic changes affecting *ge* provide conditions for the possibility of non-referential NPs collocating with *ge* and motivating the constructionalization.

The [V *ge* VP] subschema is formed differently and more complicated. Wang (1985) described the syntactic and semantic changes of 得 *de* in Chinese and according to her, *de* in the post-verbal position starts to collocate with descriptive expressions since the 13<sup>th</sup> century. The descriptive expression following *de* is semantically associated with the subject and denotes the subject's properties or state. In other words, *de* starts to function as a marker of a secondary predicate from the 13<sup>th</sup> century. This function of *de* is often mentioned as a reference when discussing the function of *ge* in [V *ge* VP] in Chapter 2. Thus, constructionalization of [V *ge* VP] in the late 13<sup>th</sup> century is possibly influenced by the existing [V *De* VP] construction via analogization. Furthermore, as mentioned above, in the [V<sub>say/think</sub> *ge* X] construction of subjective meaning, X can be VP or a clause. This construction also has a variation in which X is a phrase consisting of pairs of predicate adjectives or verbs of opposite meaning. This variation implies a resultative meaning. As a result, the early [V *ge* VP] subschema with telic and bounded meaning is a product of multiple source analogization. In addition, as mentioned in Chapter 5, at the early phase of constructionalization, [V *ge* De-verbal NP] is a high frequency type of the [V *ge* X] construction. In the later development, since the host-class of this micro-construction expands, the construction can host various types of verbs and then the VP following *ge* does not necessarily need to be de-verbal as constrained in the slots of the lexical frame of the preceding verb. Thus, the more types of [V *ge* VP] appear since the late 14<sup>th</sup> century.

To sum up, the constructionalization path of [V *ge* X] can be demonstrated in the Figure 6.14 below following the change of [V [*ge* NP]].

Figure 6.14 Constructionalization of [V ge X] of telic and bounded meaning



In this diagram, arrows indicate developing sequence and the dashed arrows indicate the analogization direction. [V ge N] is directly developed from [V [ge NP]]. [V ge VP] is developed from [V ge Adj.] with telic and bounded reading and analogization from [V ge De-verbal NP], a sub-construction of [V ge N]. [V ge Adj.] emerges by analogization with [Vsay/think ge X] with subjective evaluation and [V ge VP] construction of two sub-events.

## 6.5 Discussion of the Constructionalization

In 6.4, the constructionalization of [V ge X] with telic and bounded aspectual meaning has been described, but there are some details about the emergence of this construction worth further discussion.

### 6.5.1 Constructional Changes and Constructionalization

The emergence of [V ge X] construction with telic aspectual meaning, as demonstrated above, involves at least two constructiontionalizations and a series of constructional changes, both pre-constructionalization and post-constructionalization. The establishment of the fixed word order of [Num CL Noun] marks the constructionalization of Chinese classifier construction with primarily quantification meaning and at the same time, based on the function of classifiers, the classifier construction also implies individualization function on entities. Ge as a classifier in this construction has to follow the constraints of this construction and collocates

with referential nouns. After the omission of numeral *yi* ‘one’, the constraints on the subtype of classifier construction with *ge* in post-verbal position become loose, and it starts to host nouns of non-referential reading. This, on one hand, provides evidence of Himmelmann’s (2004) first type context expansion, i.e. host-class expansion. On the other hand, since the host-class expansion of the classifier construction with *ge* is restricted to a particular position, post-verbal position, in the 7<sup>th</sup> century, the frequent collocation becomes entrenched together as [V [*ge* Noun]], which provides the context for constructionalization. Furthermore, the later development of the [V [*ge* Noun]] pattern demonstrates the other two context expansions proposed by Himmelmann (2004) as well. In 11<sup>th</sup> and 12<sup>th</sup> century, [V [*ge* Noun]] is found to collocate with subjects of various types, not restricted to animate nouns as subjects with the thematic role of agent but expanded to inanimate nouns such as books, texts, which are metaphorically used as agents, as in (6.24).

- (6.24) 易 只是 说 个 卦象  
*Yi zhishi shuo ge guaxiang*  
*Yi only say GE meaning.of.hexagram.*  
*Yi only talks about the meaning of hexagram.*

This type of collocation change can be categorized as Himmelmann’s (2004) syntactic expansion. Furthermore, ever since post-verbal *ge* can collocate with non-referential nouns and deverbal nouns, the [V [*ge* N]] pattern gains subjective meaning and therefore the pragmatic contexts in which this pattern is applied are expanded, too. With the semantic-pragmatic expansion, nouns following post-verbal *ge* are detached from their preceding classifier, i.e. *ge* because their non-referential reading does not require or even conflicts with the individualization function of the classifier. Then, [V *ge* X] construction with telic and bounded aspectual meaning emerges.

The host-class expansion is the start for not only the other two types of contexts expansions in the development of post-verbal *ge* as a classifier but also the constructionalization of [V<sub>say/think</sub> *ge* X] of subjective meaning. The host-class expansion on the one hand, enables the further syntactic and semantic-pragmatic expansions, and on the other hand, enables non-nominal elements to appear in the position following post-verbal *ge*. However, this type of collocation with *ge* is restricted to certain contexts, i.e. *ge* is preceded by verbs of communication/ mental activity. In this particular context, *ge* together with its preceding verb <sub>say/think</sub> and following non-nominal constituents, starts to be used particularly in contexts of subjective meaning. At

the same time, *ge* does not have individualization function over its following elements, because they are not nominal and cannot be construed as discrete entities. In this sense, *ge* does not form a dependency relationship with its following non-nominal phrase. And since [V<sub>say/think</sub> *ge* X] pattern gains the subjective meaning as a down toner, a form<sub>new</sub>–function<sub>new</sub> pair is formed and the constructionalization of [V<sub>say/think</sub> *ge* X] of subjective meaning occurs.

The two constructionalization processes are similar in the way that they both occur after semantic-pragmatic expansion of the classifier construction with *ge* in post-verbal position. The semantic-pragmatic expansion accompanies a type of semantic change that the pattern is associated with a subjective meaning. This kind of semantic changes is termed as subjectification by Traugott (2010). Since it is simply a kind of semantic change, it does not entail any form changes. In other words, the semantic-pragmatic expansion preceding constructionalization is not the cause of constructionalization. Traugott (2010: 55) quotes Haspelmath (1999) to illustrate the relationship between subjectification and grammaticalization. According to her interpretation, subjectification is somehow conscious behavior. These conscious changes in meaning involve speaker's subjective attitude and the speaker's desire of making this attitude known. In order to mark this communication task overtly, subjectification may be marked by morphosyntactic changes. In the cases of the research, *ge* as a classifier has loosed its collocation constraints and can now co-occur with non-referential nouns (preceding [V *ge* X] of aspectual meaning) and VP (preceding [V<sub>say/think</sub> *ge* X] of subjective meaning). Thus, although constructionalization and subjectification are not the same processes, subjectification as a type of semantic change of a construction may lead to a constructionalization. Semantic-pragmatic expansion can be a result of subjectification and subjectification marks the mismatch of form and meaning. The mismatch motivates neoanalysis and therefore leads to constructionalization.

### 6.5.2 Mechanisms of Change in Constructionalization

The context expansion of a construction demonstrates pre-constructionalization constructional changes (Pre-Cxn CC), but they do not show how constructionalization occurs or in other words, they are not the mechanisms of constructionalization. Traugott and Trousdale (2013) proposed that the main mechanisms of constructionalization are neoanalysis and analogization, which have been briefly introduced in the first section of this chapter.

Neoanalysis is defined in line with re-analysis as a hidden change, in which the surface structure of a construction is not changed but speakers' analysis of the structure is changed (Langacker 1977). Thus, based on this definition, neoanalysis seems mainly about form changes. Semantic neoanalysis may occur preceding syntactic neoanalysis. But semantic neoanalysis is not like syntactic neoanalysis, which can be directly observed by form changes. Preceding the constructionalizations of [V<sub>say/think</sub> *ge* X] of subjective meaning and [V *ge* X] of aspectual meaning, there are mismatches between form and meaning. That is *ge* does not individualize non-referential nouns or VP as a nominal classifier. Thus, the co-occurrence of *ge* and non-referential nouns and VP in post-verbal position incurs form and meaning mismatch. This mismatch potentially leads to neo-analysis to override the conflicts. First of all, the meaning of the pattern has changed. Since the [V<sub>say/think</sub> *ge* X] pattern acquires the subjective meaning and the [V *ge* X] pattern acquires telic and bounded meaning. According to Traugott (2010), the [V<sub>say/think</sub> *ge* X] pattern gains the subjective meaning is a kind of semantic neoanalysis; [V *ge* X] with telic and bounded reading is a result of neoanalysis of individualization function of *ge*, from individualizing entities to individualizing events. Based on the constructional semantic neoanalysis, *ge* is considered detached from its 'atypical' following elements and the underlying structure of [V *ge* X] is neoanalyzed as well. Consequently, this new meaning and new form lead to the constructionalization of [V *ge* X] with telic and bounded meaning. In Chinese, there is no morphological change to mark syntactic structure so the syntactic neoanalysis is a hidden change and does not have overt evidence reflected in form. So, semantic neoanalysis, as an indirect but perhaps stronger source of evidence seems to be more important in the constructionalization in Chinese. On the other hand, the semantic neoanalysis is motivated by host-class expansion, which is the change of collocational range represented in the form. Thus, in the process of constructionalization syntactic changes and semantic changes can be seen as interdependent and motivate each other.

The constructionalizations of [V<sub>say/think</sub> *ge* X] with subjective meaning and [V *ge* X] with telic and bounded meaning are preceded by series of semantic changes of the source construction, i.e. the classifier construction with *ge*. Despite the semantic changes, the existence of *ge* in both new constructions signifies that *ge* has persistence effects on the new constructions. Hopper (1991) defined the Principle of Persistence as follows:



*'When a form undergoes grammaticization from a lexical to a grammatical function, so long as it is grammatically viable some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution.'* (Hopper 1991: 22)

This principle applies to the constructionalization of both [V<sub>say/think</sub> ge X] with subjective meaning and [V ge X] with telic and bounded meaning and to some degree influences the direction of their semantic neoanalysis. As introduced in previous chapters, *ge* can be seen as a pure classifier since its semantic function is purely to individualize nominal concepts and enable them ready for quantification. As a result, the individualization function becomes the core semantic feature of *ge*. In the new constructions, in order to keep *ge*'s individualization function and override its conflicts with its collocations, this persisting semantic function is required to be interpreted differently. As discussed in section 6.4, *ge* as a classifier can be understood as an 'individualizer' of a mass nominal concept into discrete entities in the domain of space while *ge* in the other constructions is individualizer in other types of domains. That means in [V ge X] construction of aspectual meaning, *ge* individualizes discrete and therefore bounded events from unbounded activities denoted by the verbs and their arguments. In this construction, *ge* is understood as an individualizer in the domain of time. As to the [V<sub>say/think</sub> ge X] construction with subjective meaning, *ge* as an individualizer is not straightforward as the other cases because this construction has a specific pragmatic meaning. From Langacker's view, linguistic expressions 'are characterized semantically by the imposition of a profile on a base' (1988:60). Thus, *ge* as a classifier profiles discrete entities on a base of mass nominal concept; *ge* in [V ge X] of aspectual meaning profiles bounded events on the base of endless activities. As to *ge* in [V<sub>say/think</sub> ge X] construction with subjective meaning, the profile and the base is placed from the domain of discourse to the domain of semantics. The individualizing function of *ge* is applied in context and profiles the speaker's subjective attitude on the focused information against the base of a larger context. And *ge* as an individualizer creates a bounded spot-lit focus in the context of a speaker's subjective attitude. So through the series of constructional changes i.e. from classifier construction with *ge*, to the emergence of [V<sub>say/think</sub> ge X] construction with subjective meaning and [V ge X] of aspectual meaning, the individualizing meaning of *ge* is kept and applied in different domains. The classifier construction with post-verbal *ge*, the [V ge X] construction with aspectual function and [V<sub>say/think</sub> ge X] of subjective meaning can all be considered as semi-schematic constructions because they all contain a specific element, *ge*,

which cannot be replaced. *Ge* keeps its individualizing function through all semantic changes but with the force of neoanalysis this core semantic function is distributed in various domains. This is not rare in constructionalization. As in the case of the well-known constructionalization of [be going to] as a future marker, the source constructional meaning in the domain of space is neoanalyzed into the domain of time; the binominal quantifier construction is an instance of changing domains from semantics (quantification) to pragmatics (subjective attitude). As to the English ditransitive construction, despite its fully schematic form, it maintains the central transferring semantic property of its most frequently used verb, *give*. It can be concluded that semantic persistence is ubiquitous in constructionalization and semantic neoanalysis, and it functions to distribute the core-semantic property into various domains. In other words, the core-semantic property is an exemplar and the other constructions are its semantic extensions.

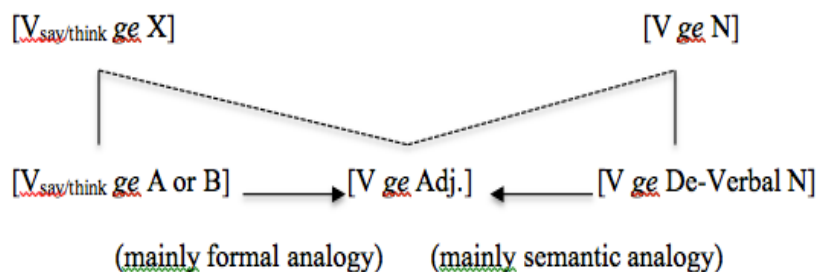
The other mechanism of language change is analogization following Traugott and Trousdale (2013)'s terminology, which has been introduced in section 6.1. In the previous section, analogization has been mentioned several times during the constructionalization of both [V<sub>say/think</sub> *ge* X] with subjective meaning and [V *ge* X] of telic and bounded aspectual meaning. The basic idea about 'analogy' is pattern matching and analogization is about how language changes via analogy. Pattern matching implies there is an exemplar in analogization and the emergence of [V *ge* VP] of telic and bounded meaning is a result of pair-matching with multiple constructions, i.e. analogization and furthermore, the emergence of this subtype of [V *ge* X] of aspectual meaning is not simply a product of host-class expansion of the initial [V *ge* N] type.

According to the data in corpus described in Chapter 5, the initial instances of [V *ge* VP] of aspectual meaning is in the form of [V *ge* Adj.], which is similar in form to the later emerged instances of [V<sub>say/think</sub> *ge* X] of subjective meaning. Furthermore, in most instances recognized as [V *ge* VP] of aspectual meaning, the V slot is occupied by verbs like *kan* 'investigate', *jiang* 'say' and other verbs of communication and mental activity, which is in accordance with the constraints on V in [V<sub>say/think</sub> *ge* X] of subjective meaning. In addition, as analyzed above, the subtype of [V<sub>say/think</sub> *ge* X], noted as [V<sub>say/think</sub> *ge* A (or) B] implies a resultative meaning and the negative subjective meaning is not obvious. Despite these similarities, both in surface form and meaning, between [V *ge* Adj.] and [V<sub>say/think</sub> *ge* A (or) B], the major

difference between these two constructions lies in the relationship between V and the component following *ge*. In [<sub>V<sub>say/think</sub></sub> *ge* A (or) B] of subjective meaning, [A or B] following *ge* denotes the content of the action designated by the preceding V<sub>say/think</sub>, as is the case with the other types of [<sub>V<sub>say/think</sub></sub> *ge* X]. As to [V *ge* Adj.], the adjective following *ge* denotes the resultant state of the action designated by the preceding verb. In other words, X in [<sub>V<sub>say/think</sub></sub> *ge* X] of subjective meaning is an argument within the semantic frame of the verb while the adjective in [V *ge* Adj.] of aspectual meaning is an argument created by the construction. Furthermore, as analyzed above, these two constructions also come to be distinguished in meaning, since the former construction does not have as strong an aspectual interpretation as the latter. Thus, [V *ge* Adj.] with aspectual meaning is a distinct construction from [<sub>V<sub>say/think</sub></sub> *ge* X] of subjective meaning, despite their clear similarities. However, based on the similarities and differences between the two constructions, there is a clear analogical link between them. Therefore, the newly developed [V *ge* Adj.] pattern matches with the existing [<sub>V<sub>say/think</sub></sub> *ge* X] of subjective meaning, which was entrenched in the late 13<sup>th</sup> century. But with the contextual information, the [V *ge* Adj.] pattern does not denote the same constructional meaning as [<sub>V<sub>say/think</sub></sub> *ge* X] and this mismatch may facilitate the behaviour of speakers to match this pattern with another construction given the similarity between semantic-pragmatic properties. However, as Fischer (2008) noted, analogization is not predictable because it starts with analogical thinking which largely based on ‘the experience and creativity of the individual speaker’. Traugott and Trousdale (2013) has emphasized that new uses of language by an individual speaker are only innovations and new uses in a larger community of speakers are considered as valid language changes. Thus, language changes via analogy are invisible but can be proved by some indirect evidence. The following development of [V *ge* VP] construction with aspectual meaning supports the occurrence of analogization of [V *ge* Adj.] given [V *ge* N] of aspectual meaning. The newly formed [V *ge* N] construction of aspectual meaning becomes another exemplar that inspires the telic and bounded reading of the [V *ge* Adj.] pattern. Moreover, the [V *ge* Adj.] construction with aspectual meaning is first found used in the late 13<sup>th</sup> century in CCL corpus, and at the same time, the existing [V *ge* N] construction of aspectual meaning developed a new sub-type [V *ge* De-verbal N]. In the late 14<sup>th</sup> century, the frequency of the [V *ge* De-verbal N] subtype decreases but a new type of [V *ge* VP] merged with [V *ge* Adj.], with aspectual meaning demonstrates a high productivity. As a result, the [V *ge* VP] micro-construction of aspectual meaning, including subtypes of [V

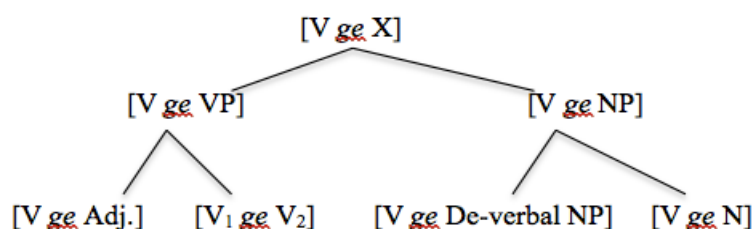
ge Adj.] and [V ge VP] finally formed. The whole process can be shown as below in the two diagrams, respectively.

Figure 6.15 Analogization in Constructionalization of [V ge Adj.] of aspectual meaning



This diagram briefly demonstrates how [V ge Adj.] of aspectual meaning forms. The dashed lines link [V ge Adj.] with both [V<sub>say/think</sub> ge X] construction with subjective meaning and [V ge N] construction with aspectual meaning because [V ge Adj.] has some features of these constructions but is not fully sanctioned by either schema. [V ge Adj.] is construed via analogy with [V<sub>say/think</sub> ge X] mainly based on their common properties in form (including verb group, adjectives in the X slot etc.). At the same time, [V ge Adj.] is also understandable via the analogy with [V ge N] of aspectual meaning, since they both designate telic and bounded events. In the late 14<sup>th</sup> century, [V ge Adj.] of aspectual meaning has been well entrenched supported by its increasing token frequency in CCL corpus, and the construction network is re-shaped as following.

Figure 6.16 [V ge X] construction with aspectual meaning



[V *ge* Adj.] with aspectual meaning merged with a newly developed [V<sub>1</sub> *ge* V<sub>2</sub>] and formed a more schematic construction [V *ge* VP]. The [V *ge* VP] schema and the previously formed [V *ge* N] construction are abstracted into a more schematic [V *ge* X] schema based on their common form and meaning properties.

In addition to the above analogization in the constructionalization of [V *ge* VP], there are other possible analogizations throughout the whole process of the development of *ge* in Chinese. First, looking at the time line, [V<sub>say/think</sub> *ge* X] appears when the second semantic bleaching of [*ge* N] in post-verbal position starts, i.e. the noun following *ge* becomes less referential. The increasing use of [V<sub>say/think</sub> *ge* X] demonstrates a possible collocation of *ge* in which *ge* need not co-occur with referential nouns. Thus it is highly possible that it may have some influence on the further semantic bleaching of referentiality in [*ge* N] and finally leads to the constructionalization of [V *ge* N] of aspectual meaning. Second, host-class expansion as a constructional change is an important factor in constructionalization and can be seen via analogization through pattern-matching as well. Furthermore, the mismatch of form and meaning in the pre-constructionalization phase of [V *ge* N] causes analogy in meaning, i.e. the core individualization meaning. This core meaning is construed from the spatial domain to the temporal domain by speakers via analogization. Moreover, it is possible that the emergence of [V *ge* Adj.] is associated with [V *de* Adj.] with embedded sub-events that started to be widely used at the same time. It is possible that the existing [V *de* Adj.] construction helps the interpretation of the relationship between V and Adj., i.e. they designate an action and the resultant state respectively. However, these proposed analogizations need further research, which is beyond the scope of this thesis.

To sum up, analogization is concerned with language changes via pattern- matching and it is unpredictable because it depends on the structure of the existing language network at the time when the change occurs. However, as shown in the analysis above, there are constraints on analogization and initial analogical thinking because constructions are form and meaning pairs and analogy is not simply pattern-matching but also meaning-matching.

The emergence of [V *ge* N] with aspectual meaning is mainly through neoanalysis since it does not have any existing exemplar of similar structure and function but the new semantics of the construction may have arisen due to perceived associations of meaning with existing constructions, i.e. through a possible analogy of the core individualization in different

domains. Host-class expansion as a type of micro-constructural change belongs to neoanalysis based on Traugott and Trousdale (2013)'s argument but host-class expansion is also done through pattern matching, i.e. analogization as well. In other words, neoanalysis and analogization as two mechanisms of language changes are interrelated.

### 6.5.3 Changes of the Properties of Constructions

Section 6.2 has demonstrated the gradience of productivity, schematicity, compositionality and analyzability among micro-constructions of [V *ge* X] of aspectual meaning. This subsection will show how these factors change through constructionalization of [V *ge* X].

At the initial stage of constructional change before the constructionalization of [V *ge* N] of aspectual meaning, post-verbal *ge* starts to collocate with non-referential nouns, which is not typical for a classifier. This special collocation of *ge* is due to the semantic bleaching and does not apply to other classifiers at that time. Thus, the interpretation of post-verbal *ge* and its following non-referential noun is not transparent. In other words, the [V [*ge* N]] pattern is not as compositional as other patterns involving the classifier construction. When the constructionalization of [V *ge* N] occurred, neo-analysis rearranged the function of *ge* in this construction and made it less associated with the following N. Thus, *ge* in [V *ge* N] is not a classifier and the aspectual constructional meaning is not directly assessable from the surface form. As a result, [V *ge* N], from the diachronic perspective, has undergone a decrease in the compositionality. In fact, there are three semantic bleaching processes preceding the constructionalization of [V *ge* N], and each semantic bleaching reduces the original semantic properties. Therefore, the [V [*ge* N]] pattern moves to the margin of its original schema and becomes less sanctioned by the schema as well. As a result, the compositionality of the pattern decreases. In other words, the loss of compositionality of the construction is not an abrupt process; instead, it is a gradual process throughout constructional changes and constructionalization.

Furthermore, the semantic bleaching is in a way motivated by host-class expansion as discussed in the previous section and thus, host-class expansion is also attributed to the decrease of compositionality of the construction. In the later development, the new [V *ge* Adj.] sub-construction is grouped with [V *ge* N] due to their similar semantic properties and the function of *ge* in this new pattern is further away from its original classifier function and

thus the compositionality of [V *ge* Adj.] is further reduced. Traugott and Trousdale (2013: 121) mentioned once constructionalization has occurred, the new construction may become more analyzable with reference to the new schema which sanctions it. Thus, from this perspective, [V *ge* Adj.] can be analyzable by analogy with the existing [V *ge* N] of aspectual meaning. However, as observed in the real language use, this is not the case with the construction [V *ge* Adj.] or its further abstracted super-schema [V *ge* VP]. As in the existing [V *ge* N] micro-construction, although *ge* is not a classifier, it is followed by nouns and thus, speakers may tend to analyze the structure of [V *ge* N] like a normal classifier construction. There are instances attested in which N in [V *ge* N] construction of aspectual meaning is modified by adjectives. These instances indicate that the speakers analyzed the [V *ge* N] construction as classifier construction. It does not mean that speakers do not distinguish [V *ge* N] construction of aspectual meaning from the normal classifier construction. The existence of such instances can be explained by the dominant use of *ge* as a classifier. Thus, *ge* as a classifier is the first node speakers refer to in their language network when they come across with an expression of [V *ge* N], [V *ge* Adj.] and later [V *ge* VP] constructions. This also proves that analyzability and compositionality are not directly related.

Productivity is another important property of constructions and one which relates to how a construction is entrenched in a speaking community. As introduced in the previous section, according to Barðdal (2008), productivity is mainly about extensibility of a construction and it can be measured by the type frequency and semantic coherence of the construction. Thus, the more types of constructs a construction sanctions, the more productive a construction is. As discussed in previous sections, classifier constructions, [V<sub>say/think</sub> *ge* X] construction of subjective meaning and [V *ge* N] construction of aspectual meaning all undergo host-class expansion after their constructionalization. That means the types of specific constructs they can sanction respectively are increasing. For example, the N slot of classifier construction in [V [*ge* N]] pattern can host referential nouns at the beginning, but later, more non-referential nouns are accepted by this pattern and at the end, some less nominal elements appear in the slot following *ge*. Similarly, after the constructionalization of [V<sub>say/think</sub> *ge* X] construction of subjective meaning, X slot is filled with not only VPs but also clauses in form of quotations and complex VPs. In addition, V in this construction is also extended from typical verbs of communication and verbs of mental activities to other types of verbs. As to the [V *ge* N] construction of aspectual meaning, its N slot's hosting ability is extended from non-referential

nouns to de-verbal nouns and even non-nominal phrases. These changes can be illustrated as below.

Figure 6.17 Extensibility of  $[V \text{ } \underline{ge} \text{ } N]$

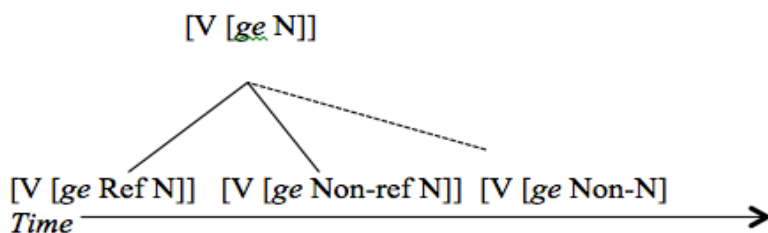


Figure 6.18 Extensibility of  $[V_{\text{say/think}} \text{ } \underline{ge} \text{ } X]$  of subjective meaning

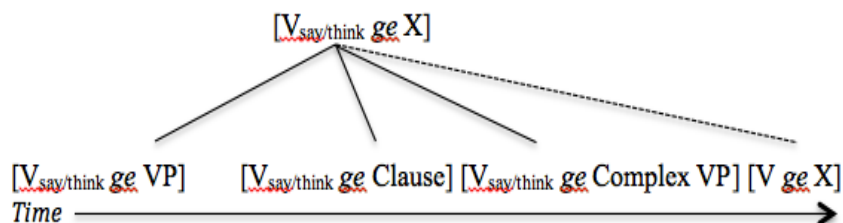
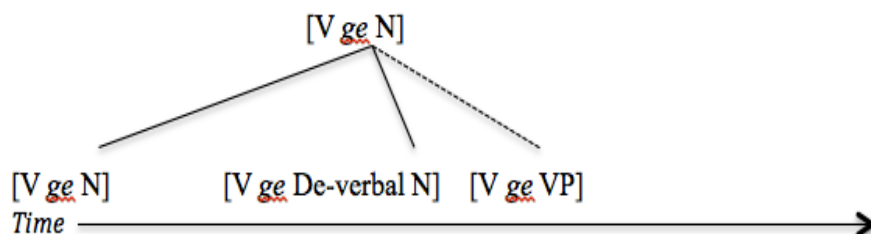


Figure 6.19 Extensibility of  $[V \text{ } \underline{ge} \text{ } X]$  of aspectual meaning



One thing in the above diagrams needs to be addressed. Along the axis of time, a construction extends to more types of instances, but this extension is not endless. As indicated by the dashed lines in each diagram, the instances at the end of the axis of time are not fully sanctioned by the construction. As analyzed in previous sections, these partially sanctioned types motivate neo-analysis and analogization and possibly lead to the emergence of other constructions. Afterwards, these partially sanctioned types become fully sanctioned by another construction and do not contribute to the extension of the original construction. In other words, the extensibility of a construction is not unbounded and it is restricted by its



constructional constraints. Furthermore, Barðdal (2008: 29) pointed that in syntax, the extensibility of a construction is about ‘how extendable already existing argument structure constructions of a language are to new types’. And a type refers to ‘a verb or a predicate instantiating an argument structure construction’. These quotes imply that extension of a construction occurs at a same lower schematic level but not across schematic levels. In other words, the productivity of a construction is about expansion in a horizontal direction in general.

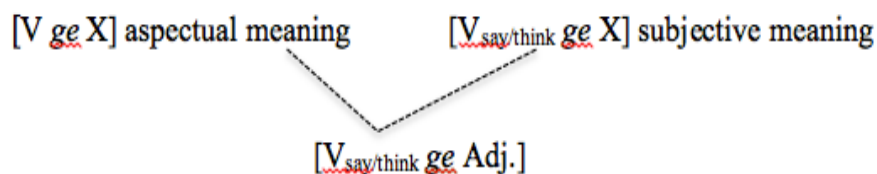
As to the other measurement of productivity proposed by Barðdal (2008), semantic coherence is inversely correlated with type frequency. That is if a construction does not show high type frequency but the constructs it sanctions demonstrate high semantic coherence, the construction is also considered as high in productivity. For example,  $[V_1 \text{ ge Neg } V_2]$  construction of aspectual meaning does not demonstrate high type frequency in the CCL corpus. It has restricted VP to the group of verbs with the meaning of ceasing while its sister construction  $[V \text{ ge VP}]$ , which is at the same schematic level, does not show such constraints and has higher type frequency. However, types of  $[V_1 \text{ ge Neg } V_2]$  construction are related with relatively high semantic coherence, i.e. denoting action of ceasing,  $[V_1 \text{ ge Neg } V_2]$  construction of aspectual meaning is also regarded as productive. Thus, the emergence of new type of  $[V_1 \text{ ge Neg } V_2]$  construction is motivated by semantic analogy and demonstrates analogical extension. Host-class expansion of a construction leads to higher type frequency as discussed above, and host-class expansion is also based analogy, to be more specific mainly analogy of form. Thus, as Barðdal (2008: 90) commented, ‘analogy is the other side of the productivity coin’

The increase of productivity of a construction is closely related to the change of schematicity of a construction as well. Schematicity is about abstractness of a construction. As analyzed in previous sections, schematicity is gradient across levels of a construction. The higher a level is, the more schematic it is. A level above a lower level, i.e. more concrete level, is a generalization of all constructs of the lower level. The lower level contains more lexical and semantic information than its higher level. Thus, as a result of a construction’s extension, more types of the pattern join its lower schematic level. In order to sanction all these new extensions, the micro-construction is undergoing the process of being generalized and therefore, becomes more schematic. For example, the early instances of  $[V_{\text{say/think}} \text{ ge } X]$

construction denote strong negative subjective meaning and therefore the semantic property of the construction involves negative subjective meaning.

Due to the extensibility of the construction, more types of expressions become sanctioned by this construction including ones which do not denote negative subjective meaning. In order to sanction these types of expressions, the negative attitude implied in the construction is bleached. The increase of schematicity of a construction can be perceived from another way. That is the micro-construction becomes a member of a more schematic construction. The development of [V *ge* X] of aspectual meaning is a good example to illustrate this case. The early instances of [V *ge* VP], [V *ge* Adj.] of aspectual meaning are partially sanctioned by [V<sub>say/think</sub> *ge* X] construction and partially sanctioned by the existing [V *ge* N] construction of aspectual meaning. When instances of [V *ge* VP] pattern with aspectual meaning join the [V *ge* Adj.] construction of aspectual meaning via extension, they are generalized into a micro-construction [V *ge* VP] of aspectual meaning at higher schematic level. This new micro-construction cannot be fully sanctioned by the existing [V *ge* N] micro-construction of aspectual meaning because of their difference in argument structure. But by analogization they are aligned together forming a highest schematic construction, i.e. [V *ge* X] of aspectual meaning. This process results in multiple levels of [V *ge* X] construction of aspectual meaning and [V *ge* X] schema sits at the highest level. In other words, [V *ge* X] schema is the most general construction compared to [V *ge* N] and [V *ge* VP] in both meaning and form and [V *ge* X] sanctions all micro-constructions at lower levels and more specific constructs at the lowest level. The increase of schematicity of [V *ge* X] construction extended the construction system in a vertical direction. As mentioned above, at the end of the host-class expansion, instances at the margin of a schema are partially sanctioned by the original schema and partially sanction by another construction, either newly formed or existing in the language network already. Thus, these marginal instances are like bridges connecting constructions and form gradience of schematicity as illustrated with the constructions in this research below.

Figure 6.20 Bridging two constructions



The changes of productivity and schematicity of a construction all occur from the point of constructionalization and are regarded as post-constructionalization constructional changes. The increase of productivity is concerned with the extensibility of the construction along the horizontal direction and the increase of schematicity is concerned with the extensibility of the construction along the vertical direction. These two types of extension of a construction help to establish an integrated construction network rather than an isolated node in the language system. At the same time, schematicity constrains the extensibility of productivity and productivity helps to form a gradient of schematicity in the network.

## Chapter 7 Conclusion

This research applies the construction grammar framework to a corpus-based study of the development of post-verbal *ge* in Chinese and accounts for the synchronic variants of the [V *ge* X] pattern from a diachronic perspective. In Chapter 1, four research questions of the thesis are listed, which are listed again below:

- 1) What are the syntactic and semantic properties of post-verbal *ge* of the special use?
- 2) Is post-verbal *ge* of the special use related to the classifier *ge*? If so, how are they related?
- 3) How did post-verbal *ge* develop the special function and what is the unit which underwent the development?
- 4) What are the similarities and differences between various types of the [V *ge* X] pattern? And what are the relationships between these variants?

In this chapter, based on the findings and analysis in the previous chapters, the answers to the above listed questions are provided.

### 7.1 Semantic and Syntactic Properties of Post-verbal *Ge* of the Special Use

Based on the data collected from the CNCorpus, *ge* in the post-verbal position is found to collocate with nominal elements, such as NPs which are the collocational objects in idiomatic VPs and splittable V-O compounds, non-referential NPs, complex NPs such as coordinated NPs, NP denoting an approximate temporal duration and frequency, and other quantified NPs. When post-verbal *ge* is collocated with NPs which are the collocational objects in splittable V-O compounds, *ge* is found to co-occur with numerals other than *yi* ‘one’. Post-verbal *ge* of special function can also be followed by non-nominal elements, such as adjectives, adjective phrases, Chinese four-character-idioms, small clauses and negated VPs. Since post-verbal *ge* has a wide range of collocations, all these variants are generalized as the [V *ge* X] pattern.

All variants of the [V *ge* X] pattern share four unique semantic properties.

- a) All the nominal elements following *ge* in the [V *ge* N] type are non-referential and cannot be modified. Even if there are instances in which N is preceded by modifiers,

they do not modify the NP in the N slot, but denote the manner of the activity designated by the preceding verb.

- b) The [V *ge* X] pattern as a whole designates events of telic and bounded aspectual meaning. The [V *ge* N] variant designates a telic and bounded event due to the presence of *ge*. In the [V *ge* non-N] variant, the non-nominal elements following *ge* mark the endpoint of the event designated by the preceding V. When the endpoint is reached, the action has to stop.
- c) All the events designated by the [V *ge* X] pattern are complete and cannot be interrupted. This means first the completion meaning of the events designated by the [V *ge* X] pattern cannot be canceled and once the action designated by V starts, the completion of the action marked by the endpoint cannot be interrupted.
- d) [V *ge* N] and [V<sub>1</sub> *ge* V<sub>2</sub>] variants designate events in irrealis mood and can be actualized by aspectual marker *le*. The [V<sub>1</sub> *ge* Neg V<sub>2</sub>] variant designates events in realis mood and mainly occurs in the context of past tense. The realis reading of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is not from the aspectual marker *le* because *le* is rarely used in the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] pattern. So the realis reading of [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is possibly from the negation on V<sub>2</sub>. Therefore, [V<sub>1</sub> *ge* Neg V<sub>2</sub>] is bounded and telic as well.

The syntactic features and semantic properties of the [V *ge* X] pattern interact and are interdependent. The syntactic and semantic properties of the [V *ge* X] pattern suggest that *ge* in this pattern is different from *ge* as a classifier because classifiers have to collocate with referential nouns and cannot collocate with non-nominal elements. In addition, classifier *ge* in the post-verbal position together with its following noun can denote a natural endpoint of the event designated by the preceding verb but it does not enable the completion of the event. However, there are many instances in which the function of *ge* is ambiguous, so the boundary between [V *ge* N] pattern and the [V *ge<sub>cl</sub>* N] is not clear-cut. This also suggested that these two *ge* in these two patterns are related.

## 7.2 The Relationship Between *Ge* in [V *ge* X] and Classifier *ge*

*Ge* in the [V *ge* X] pattern marks the bounded and telic event meaning and the classifier *ge* is used to individualize entities and mark count nouns. According to Langacker (1987),

perfective verbs can be construed as bounded in temporal domain and count nouns are bounded in the spatial domain. Thus based on this cognitive ground, *ge* in the [V *ge* X] pattern is construed as individualizing bounded event in the temporal scope and the classifier *ge* individualizes entities in the spatial scope. So *ge* in the [V *ge* X] and the classifier *ge* are linked semantically. This hypothesis can be supported by the diachronic development of *ge* in the post-verbal position.

From the 3<sup>rd</sup> century BC to the 6<sup>th</sup> century AD, the classifier system in the Chinese language has not yet established. There are some words used to distinguish singular units from plural measures. These words, i.e. proto-classifiers are the ancestors of classifiers. *Ge* as one of the earliest PCLs mainly functions to individualize and mark singular concrete units. It was found to collocate with nouns denoting food, objects, animals and humans. Later in the 5<sup>th</sup> to 6<sup>th</sup> century, it is found to collocate with nouns denoting months and seasons, which are more abstract concepts. In all instances of this time period, the numeral before *ge* is obligatory and the word order of a numeral and *ge* is fixed. During the 6<sup>th</sup> to 7<sup>th</sup> century, the collocational range of *ge* expanded. *Ge* and numerals can collocate with nouns denoting more types of entities. Since the 8<sup>th</sup> century, in the post-verbal position, when the numeral before *ge* is *yi* ‘one’, the numeral can be omitted. Since the omission of *yi* ‘one’, the quantification meaning of the NPs is weakened and the requirement of referentiality on the following noun becomes loose. Then, *ge* is able to collocate with less referential nouns which are not the focus in the discourse. The collocational range of *ge* is further expanded to more complex nominal structures and less referential nominal elements. Since post-verbal *ge* starts to collocate with less nominal elements, the meaning of the pattern changed and a subjective meaning is added. Thus a new function of post-verbal *ge* appears. Post-verbal *ge* of the new function is typically used following verbs of communication and verbs of mental activity. In 11<sup>th</sup> to 12<sup>th</sup> century, *ge* of the new function is found to collocate with clauses as an indirect quotation. The [V<sub>say/think</sub> *ge* X] pattern does not denote strong interactive communication scene and the message denoted by X is actually a summarized topic. In the [V<sub>say/think</sub> *ge* X] pattern, X can be an AP consisting of two adjectives denote opposite meaning. This type of [V<sub>say/think</sub> *ge* X] denotes telic and bounded meaning. The [V<sub>say/think</sub> *ge* X] pattern is different from either the classifier structure or the [V *ge* X] construction of telic and bounded meaning.

In the 11<sup>th</sup> -12<sup>th</sup> century, when post-verbal *ge* collocates with nouns, the nouns are not necessary to be referential, because the bare *ge* in the post-verbal position does not impose referentiality on the following noun. The semantic bleaching of the bare *ge* in the postverbal position can be proved by the existence of instances, in which *ge* is followed by a WH-word, *shenme* ‘what’. The [V *ge* *Shenme*] pattern forms a rhetorical question and according to Haspelmath (1997), *shenme* ‘what’ in this pattern is an indefinite pronoun and a negative polarity item. According to its distribution, *shenme* following post-verbal *ge* denotes non-specific reference. Non-specific nouns are less referential. So the referentiality component of post-verbal *ge* is changing. In the 12<sup>th</sup> to 13<sup>th</sup> century, post-verbal *ge* is found ubiquitously collocated with non-referential nouns, which further indicates that *ge* in this collocation is moving to the margin of the classifier category.

Since the late 13<sup>th</sup> century, the bare post-verbal *ge* starts to collocate with non-referential nouns which are collocational objects in idiomatic VPs and adjectives which denote the resultant states. This [V *ge* X] pattern has a clear telic and bounded meaning as that in the contemporary Chinese. So the post-verb *ge* of special use which is the focus of the research comes into existence.

This process suggests that the special function of *ge* in the post-verbal position is historically developed from classifier *ge* through series of steps. In this gradual process, there is another pattern [V<sub>say/think</sub> *ge* X], which is different from [V *ge* X]. Some types of [V<sub>say/think</sub> *ge* X] have telic and bounded meaning, so this pattern is possible to contribute to the emergence of [V *ge* X]. The whole process can be briefly illustrated below:

[V Num *ge* N] -> [V *ge* N] -> [V *ge* WH]->[V *ge* X] (aspectual meaning)

|

[V *ge* VP ]-> [V<sub>say</sub> *ge* X] (subjective meaning)

### 7.3 [V ge X] as a Construction and the Mechanism of the Constructionalization

Post-verbal *ge* does not acquire the special function as an individual morpheme; instead, the change occurs in a construction which consists of the preceding verb, *ge* and its following elements. There are mainly two reasons to consider [V *ge* X] as a construction. First, this pattern as a whole denotes a meaning (as below), which is not from an individual component.

*[V ge X] designates an individualized event which has to be completed in the future, and therefore the event is telic and bounded and in the irrealis mood.*

Second, the dependency relationship between V, *ge*, and X has changed as well. When *ge* is a classifier followed by a nominal structure, *ge* forms a dependency relationship with the following nominal structure. This dependency association is suggested by the function of classifiers, i.e. to individualize entities and mark count nouns. In the [V *ge* X], X is either non-referential nouns or non-nominal structure, which do not need classifiers. *Ge* in this pattern individualizes events which are designated by the whole expression, so *ge* does not form dependency relationship with its following elements. In this sense, the [V *ge* X] pattern has different morphosyntactic structure and meaning from the classifier structure, so [V *ge* X] is a distinct construction. The two variants of [V *ge* X] can be represented below:

Figure 7.1 [V *ge* VP] construction

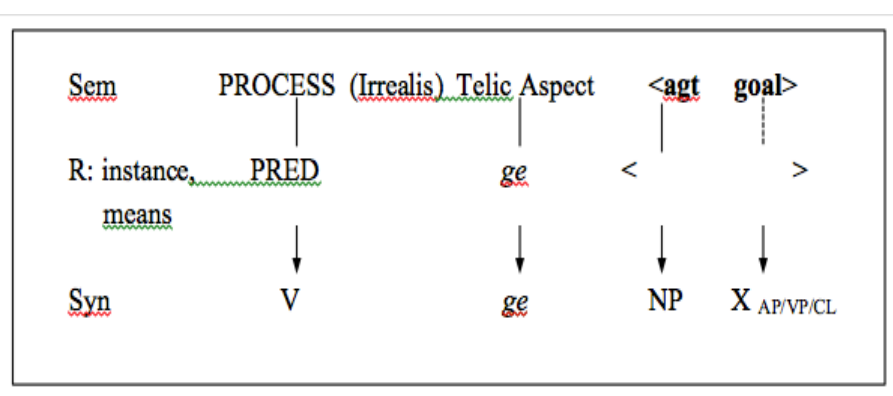
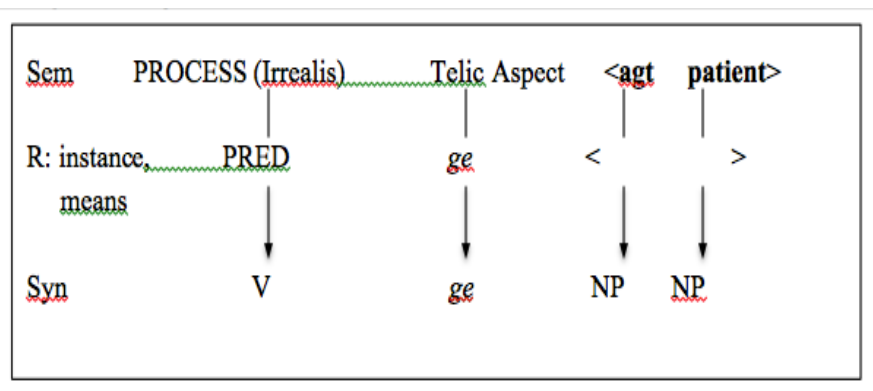


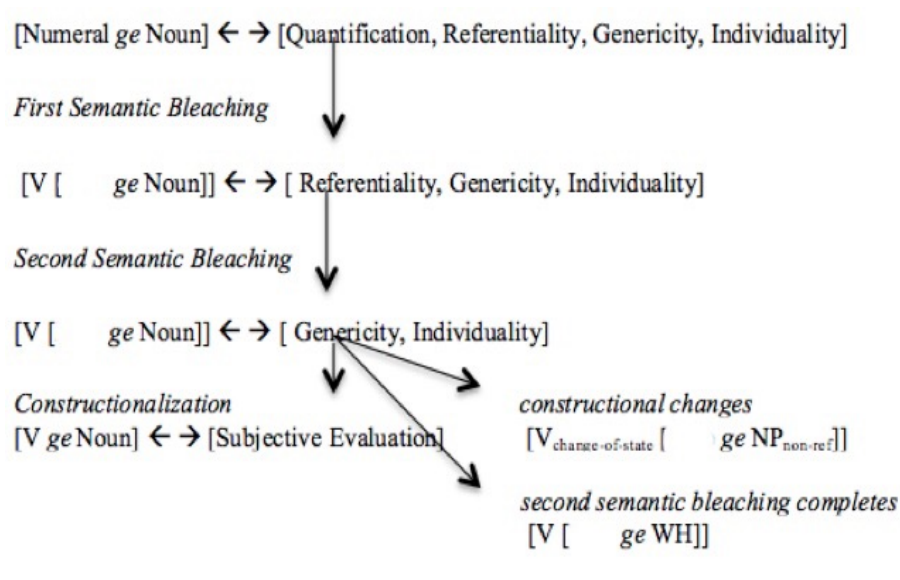


Figure 7.2 [V ge N] construction



So *ge* acquires the new function as individualizing events in the construction [V *ge* X]. Since the omission of *yi* ‘one’ before post-verbal *ge*, post-verbal *ge* with its following elements undergoes several steps of constructional changes, which are mainly semantic changes, until *ge* starts to collocate with non-nominal structures. Since post-verbal *ge* starts to collocate with non-nominal structure, a Form<sub>new</sub>—Function<sub>new</sub> construction emerges. The process can be represented as follow:

Figure 7.3 Constructional changes and constructionalization of [V *ge* X] of subjective meaning



The constructionalization leads to the existence of [V *ge* X] of subjective meaning. The post-constructionalization constructional changes of [V *ge* X] and together with the continuous

changes of classifier construction with *ge*, lead to the constructionalization of [V *ge* X] as in Figure 7.4.

Figure 7.4 Constructionalization of [V *ge* X] of telic and bounded meaning

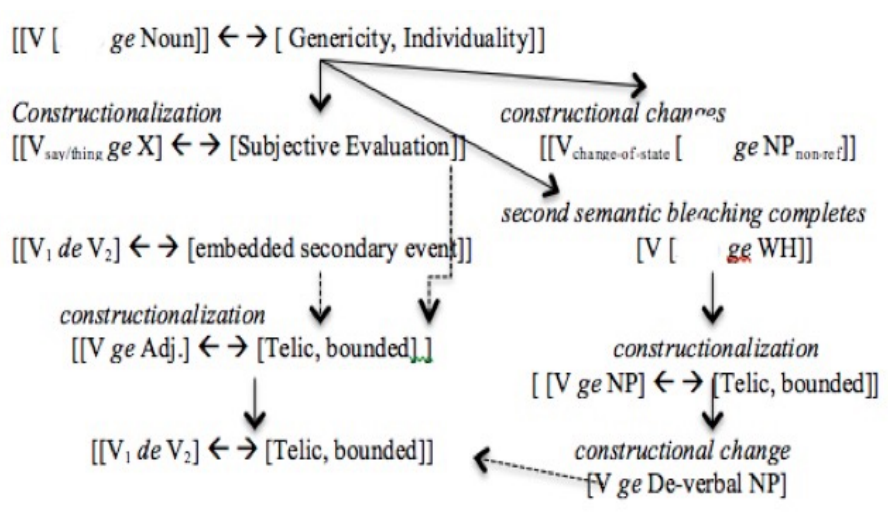
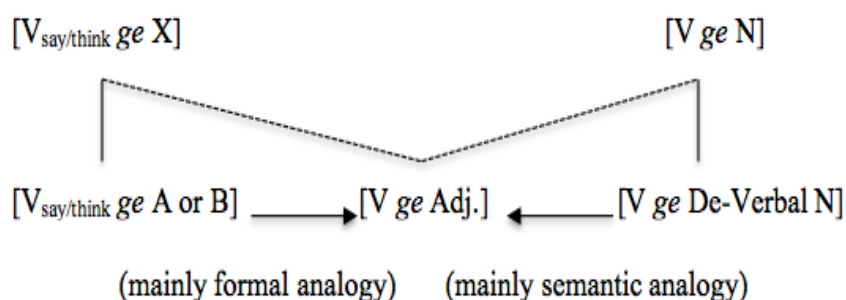


Figure 7.4 shows the process of constructionalization of [V *ge* X] and it can be seen that its [V *ge* N] variant and [V *ge* VP] variant are formed along different paths. The [V *ge* N] micro-construction is formed via mainly neo-analysis. The semantic bleaching on classifier *ge* results in its loss of referentiality constraints on its following NP and its individualizing function cannot be applied to the NP. However, an individualizing function is the basic semantic property of *ge* and cannot be bleached out. So the function is applied to other domains, i.e. from the spatial domain to the temporal domain. At the same time, the form and meaning mismatch motivates a new analysis on the dependency relationship between V, *ge* and N and a Form<sub>new</sub>—Function<sub>new</sub> pair, i.e. [V *ge* N] construction of telic and bounded meaning emerges. As to the [V *ge* VP], as indicated in Figure 7.4, is mainly formed by analogization, as in Figure 7.5.

Figure 7.5 Analogization in Constructionalization of [V ge Adj.] of aspectual meaning



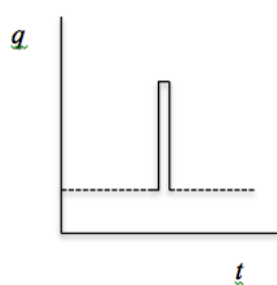
The [V ge Adj] as the earliest type of the [V ge VP] subschema is a product of post-constructionalization constructional changes of both [V<sub>say/think</sub> ge X] construction of subjective meaning and [V ge N] construction of telic and bounded aspectual meaning. [V ge Adj.] is construed via analogy with [V<sub>say/think</sub> ge X] mainly based on their common properties in form (non-nominal elements in the X slot etc.). At the same time, [V ge Adj.] is also understandable via the analogy with [V ge N] of aspectual meaning, because they both designate telic and bounded events.

So the variants of [V ge X] are not formed at the same time or via exactly the same mechanism.

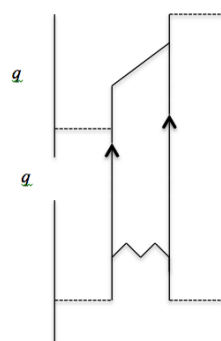
## 7.4 Links between Constructions

The [V ge X] schema of telic and bounded meaning has two subschemas, i.e. [V ge N] and [V ge VP]. The [V ge X] construction, as mentioned in section 7.3, has a core constructional meaning. Both of its subschemas are linked to this core meaning but in slightly different ways. In the [V ge N] construction, the telic and bounded meaning is mainly from the presence of *ge*, the marker of the construction; but endpoint of the [V ge VP] construction is overtly expressed by VP. In [V ge N], V+N as a VP naturally designates unbounded activities. *Ge* in these two constructions profiles temporal boundaries to the event as illustrated in Figure 7.6.

Figure 7.6 [V *ge* N] and [V *ge* VP].



(7.6a) [V *ge* N]



(7.6b) [V *ge* VP]

In [V *ge* N], *Ge* profiles the inception and completion and in [V *ge* VP], *ge* profiles the completion change. Therefore, These two constructions, as shown in Figure 7.6, are both bounded due to the presence of *ge*. Hence, according to Goldberg (1995, 2006), they are linked to by polysemy links, which indicate they are associated with the core meaning of the construction by a set of related meanings. Moreover, as demonstrated in section 7.3, [V *ge* VP] is formed via analogization with [V *ge* N], so it suggests that the link between sub-schemas is an analogical link.

## 7.5 Research in the Future

This thesis mainly focuses on the semantic and syntactic properties of [V *ge* X] construction and the constructional changes related to the constructionalization of [V *ge* X]. There are some issues related to the topic missing or insufficient in this research. First, due to the limits of the corpus, little statistic analysis has been done in this thesis. As a result, some arguments made here do not have sufficient data support, especial on the change of productivity of the construction. In the future, a corpus-based quantitative analysis will be performed to support the arguments on the changes observed and indicate the direction of the changes as well. Second, as indicated in the thesis, the [V *ge* X] construction also has certain discourse function. Especially, the [V<sub>1</sub> *ge* Neg V<sub>2</sub>] micro-construction expresses a down-toning subjective attitude of the speaker. In addition, the meaning of [V<sub>say/think</sub> *ge* X] construction also lies in its discourse function. It will be an interesting topic to discover the discourse function of variants of [V *ge* X] construction as well as other related constructions. Third, as Traugott and

Trousdale (2013) pointed that contexts are important in the constructionalization. But the current thesis lacks the discussion on the function of contexts in the development of post-verbal *ge*. Fourth, as mentioned in Chapter 6, [V *ge* X] can combine with other constructions, such as Chinese *Ba*-construction to express the patient argument overtly in some cases. The status of the construction combination is not covered in the current thesis. These four points are the main research direction of the further study of [V *ge* X] construction.

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